



Colorado Department
of Public Health
and Environment

OPERATING PERMIT

Public Service Company of Colorado – Valmont Station

First Issued: September 1, 2001

Renewed: March 1, 2010

Last Revised: November 20, 2012

AIR POLLUTION CONTROL DIVISION

COLORADO OPERATING PERMIT

FACILITY NAME:	Valmont Station	OPERATING PERMIT NUMBER
FACILITY ID:	0130001	96OPB0131
RENEWED:	March 1, 2010	
EXPIRATION DATE:	March 1, 2015	
MODIFICATIONS:	See Appendix F of Permit	

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO:

Public Service Company of Colorado
1800 Larimer Street, Suite 1300
Denver, CO 80202

PLANT SITE LOCATION:

1800 N. 63rd Street
Boulder, CO 80301
Boulder County

INFORMATION RELIED UPON

Operating Permit Renewal Application

Received: July 5, 2005

And Additional Information Received: February 17, 2009

Nature of Business: Electricity Generating Station

Primary SIC: 4911

RESPONSIBLE OFFICIAL

Name: George Hess
Title: General Manager - Power
Generation, Colorado
Phone: (303) 571-7282

FACILITY CONTACT PERSON

Name: Gary Magno
Title: Manager Environmental Services -
Air Quality Compliance
Phone: (303) 294-2177

SUBMITTAL DEADLINES

First Semi-Annual Monitoring Period:	March 1 – June 30
Subsequent Semi-Annual Monitoring Periods:	July 1 – December 31, January 1 – June 30
Semi-Annual Monitoring Report:	Aug. 1, 2010 & Feb. 1, 2011 & subsequent years
First Annual Compliance Period:	March 1 – June 30
Subsequent Annual Compliance Periods:	July 1 – June 30
Annual Compliance Certification:	August 1, 2010 & subsequent years

Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.

FOR ACID RAIN SUBMITTAL DEADLINES SEE SECTION III.4 OF THIS PERMIT

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SECTION I - General Activities and Summary

1. Permitted Activities

- 1.1 This facility consists of one 199 MW coal/natural gas fired boiler and one 50 MW natural gas/No.2 fuel oil-fired combustion turbine. The boiler is equipped with low NO_x burners and over-fire air to reduce NO_x emissions. Emissions from this boiler pass through a bag-house to reduce particulate emissions. The boiler was equipped with a lime spray dryer to reduce SO₂ emissions. The lime spray dryer became operational in August 2002. In addition, Valmont station has a natural gas fired auxiliary boiler to provide heat for the facility when the main boiler is not functioning. The auxiliary boiler addressed in the permit commenced operation in November 2012 and replaced a larger natural gas-fired auxiliary boiler. Other emission sources at Valmont include fugitive emissions from coal handling and storage, ash handling and disposal and from traffic on paved/unpaved roads. An ash blower system, two (2) recycle ash silos, two (2) recycle ash mixers, two (2) lime storage silos and two (2) ball mill slakers were added to the facility to support the lime spray dryer. These additional emission units became operational in August 2002. Finally, Valmont station has a System One cold cleaner solvent vat, an emergency fire pump engine and point source emissions above APEN significance levels from the ash silo and the coal handling system (crusher and conveyors). In addition, Public Service Company (PSCo) entered into a Voluntary Emissions Reduction Agreement with the Division. The provisions of that agreement became effective on January 1, 2003 and the appropriate provisions of that agreement have been included in this permit.

PSCo's Valmont Generating Station is co-located with SWG Colorado's Valmont Combustion Turbine Facility. Since the two facilities are located on contiguous and adjacent property, belong to the same industrial grouping (first two digits of the SIC code are the same) and are under common control (SWG Colorado via a power purchase agreement with PSCo), they are considered a single stationary source for purposes of major stationary source new source review and Title V operating permit applicability. A separate Title V operating permit was issued for SWG Colorado's Valmont Combustion Turbine Facility (01OPBO238).

The facility is located in Boulder at 1800 N. 63rd Street in Boulder county. The Denver metro area, including Boulder, is classified as attainment/maintenance for particulate matter less than 10 microns (PM₁₀) and carbon monoxide (CO). Under that classification, all SIP-approved requirements for PM₁₀ and CO will continue to apply in order to prevent backsliding under the provisions of Section 110(l) of the Federal Clean Air Act. The Denver metro area, including Boulder, is classified as non-attainment for ozone and is part of the 8-hr Ozone Control Area as defined in Colorado Regulation No. 7, Section II.A.1.

There are no affected states within 50 miles of the plant. Rocky Mountain National Park and Eagles Nest and Rawah National Wilderness Areas, all Federal Class I designated areas, are within 100 kilometers of the plant.

- 1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.
- 1.3 This Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revision made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this operating permit and shall survive reissuance. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits: P-10,217, 00BO0814, 00BO0815, 00BO0816, 00BO0817, 00BO0818 and 07BO0110B.
- 1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section II - Conditions 1.14 (Mercury), 18 (Voluntary Emissions Reduction Agreement) and 21.8.1 (opacity) and Section V - Conditions 3.g (last paragraph), 14 and 18 (as noted).
- 1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section V of this permit. Either electronic or hard copy records are acceptable.

2. Alternative Operating Scenarios

- 2.1 The permittee shall be allowed to make the following changes to its method of operation without applying for a revision of this permit.
 - 2.1.1 The facility may burn the following fuels:
 - 2.1.1.1 Unit B001 may burn either coal, natural gas or a combination as specified in Section II.
 - 2.1.1.2 Unit T001 may burn either natural gas, No. 2 fuel oil or a combination as specified in Section II.
 - 2.1.2 Evaporation of chemical cleaning solutions may be performed in Boiler B001 under the following conditions:
 - 2.1.2.1 All air pollution control equipment shall be in operation during evaporation of cleaning solutions.
 - 2.1.2.2 The permittee shall retain records, on site, of each cleaning event. These records shall include the date and time the event begins and ends and the amounts and types of solutions used in the cleaning event.

- 2.2 The facility must, contemporaneously with making a change from one operating scenario to another, maintain records at the facility of the scenario under which it is operating (Colorado Regulation No. 3, Part A, Section IV.A.1). Either electronic or hard copy records are acceptable.

3. Nonattainment Area New Source Review (NANSR) and Prevention of Significant Deterioration (PSD)

- 3.1 This facility is categorized as a NANSR major stationary source for ozone (Potential to Emit of $\text{NO}_x \geq 100$ tons/year). Future modifications at this facility resulting in a significant net emissions increase (see Regulation No. 3, Part D, Sections II.A.26 and 42) for VOC or NO_x or a modification which is major by itself (Potential to Emit ≥ 100 tons/year of either VOC or NO_x) may result in the application of the NANSR review requirements.
- 3.2 This source is categorized as a PSD major stationary source (Potential to Emit ≥ 100 tons/year) for PM, PM_{10} , SO_2 , NO_x and CO. Future modifications at this facility resulting in a significant net emissions increase (see Regulation No. 3, Part D, Sections II.A.26 and 42) or a modification that is major by itself (Potential to Emit ≥ 100 tons/yr) for any pollutant listed in Regulation No. 3, Part D, Section II.A.42 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.
- 3.3 Operating Permit 01OPBO238 (issued to SWG Colorado, LLC) is to be considered in conjunction with this operating permit for purposes of determining the applicability or non-applicability of NANSR and PSD regulations.

4. Accidental Release Prevention Program (112(r))

- 4.1 Based upon the information provided by the applicant, this facility is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act).

5. Compliance Assurance Monitoring (CAM)

- 5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

B001 - Unit 5 Boiler

See Section II, Conditions 1.13 and 20 for compliance assurance monitoring requirements.

6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

Emission Unit No./ Facility ID	AIRS Point Number	Description	Startup Date	Pollution Control Device
B001	001	Unit 5, Combustion Engineering Boiler, Model and Serial No. 19695, Rated at 1,845 MMBtu/hr. Coal-Fired with Natural Gas Used as Back-Up.	May 1964 Baghouse 1984, Low NO _x burners May 1990, Lime Spray Dryer August 2002	Baghouse (for PM), Low NO _x Burners with Over-Fire Air (NO _x) and Lime Spray Dryer (for SO ₂)
T001	002	General Electric Combustion Turbine, Model MS7000, Rated at 570 MMBtu/hr, Serial No. 217803. Natural Gas Fired with No. 2 Fuel Oil Used as Back-Up.	May 1973	Uncontrolled
F001	007	Fugitive Particulate Emissions from Coal Storage and Handling	May 1964	Uncontrolled
F002	008	Fugitive Particulate Emissions from Ash Handling	May 1964	Uncontrolled
F003	011	Fugitive Particulate Emissions from Vehicle Travel on Paved and Unpaved Roads	May 1964	Uncontrolled
P001	012	Ash Silo	June 1993	Baghouse, Water Spray
P002	007	Coal Handling System (crusher and upgraded conveyors)	May 1964, Conveyors upgraded November 2004, Crusher November 2004	Enclosures for Crusher. Enclosures and Water Spray for Conveyors
M001	N/A	System One Cold Cleaner Solvent Vat		Uncontrolled
P003	017	Two (2) Recycle Ash Silos	August 2002	Each with a Dynamic Air, Model 84A-100 Baghouse
P004	019	Two (2) Recycle Mixers	August 2002	Each with Chemco/Quickdraft, Custom Model No. QC5A-1½ Scrubbers with Blowers Rated at 450 acfm
P005	016	Two (2) Lime Silos	August 2002	Each with a Flex-Kleen, Model No. 30-PVB1-9-PRRIIG Baghouse

Emission Unit No./ Facility ID	AIRS Point Number	Description	Startup Date	Pollution Control Device
P006	018	Two (2) Ball Mill Slakers	August 2002	Each with Chemco/Quickdraft, Custom Model No. QC5A-1½ Scrubbers with Blowers Rated at 450 acfm
P007	020	Ash Blower System	August 2002	Uncontrolled
B003	025	Natural Gas-Fired Boiler, Model and Serial Nos. Unknown, Rated at 12.60 MMBtu/hr. The boiler is equipped with Webster Engineering Low NO _x Burners (Model No. HDSX7G-250A).	November 2012	Low NO _x Burners
E001	N/A	John Deere Emergency Fire Pump System - Equipped with a Detroit Diesel, Model No. JWGH-UF60, Serial No. RG6081H167869, Diesel Fuel-Fired Engine, Rated at 360 hp and 16.5 gal/hr.	September 2004	Uncontrolled

SECTION II - Specific Permit Terms

1. B001 – Unit 5 Boiler, Rated at 1,845 MMBtu/hr, Coal-Fired

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Emission Calculations	1.1	N/A	N/A	SO ₂ - CEM NO _x - CEM CO - 0.5 lbs/ton VOC - 0.06 lbs/ton	Continuous Emission Monitor, Recordkeeping and Calculation	Annually
Coal Usage	1.2	N/A	N/A	N/A	Recordkeeping	Annually
Coal Sampling	1.3	N/A	N/A	N/A	ASTM Analysis Methods	See Condition 1.3.
Particulate Matter (PM)	1.4	0.1 lbs/MMBtu		N/A	Baghouse Maintenance, Source Testing and CAM	See Condition 1.4.
Particulate Matter (PM and PM ₁₀) - Emission Calculations	1.5	N/A	N/A	0.003 lb/MMBtu	Calculation and Recordkeeping	Annual
SO ₂	1.6	1.1 lbs/MMBtu		N/A	Continuous Emission Monitor	Continuous, 3-Hour Rolling Average
NO _x	1.7	0.45 lbs/MMBtu		N/A	Continuous Emission Monitor	Continuous, 30-Day Rolling Average
Continuous Emission Monitoring Requirements	1.8	N/A	N/A	N/A	See Condition 1.8.	
Lead	1.9	N/A	N/A	See Condition 1.9	Recordkeeping and Calculation	Annually
Opacity	1.10	Not to Exceed 20% Except as Provided for in Condition 1.11 Below		N/A	Continuous Opacity Monitor	Continuous, 6-Minute Intervals
Opacity	1.11	For Certain Operational Activities - Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes		N/A	Continuous Opacity Monitor	Continuous, 6-Minute Intervals
Acid Rain Requirements	1.12	See Section III of this Permit			Certification	Annually

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Compliance Assurance Monitoring Requirements	1.13	See Condition 1.13			See Condition 1.13	
Mercury (Hg) – State Only	1.14	Low Emitter (LE) - Hg emissions no more than 29 lbs/yr		N/A	Performance Testing	Annual or Semi-Annual Depending on Results
Regional Haze Requirements	1.15	Shutdown Unit 5 by 12/31/2017		N/A	See Condition 1.15.	
		Metro Units SO ₂ Emission Limitations: 1/1/2013 thru 12/31/2015: 4,200 tons/yr 1/1/2016 thru 12/31/2017: 3,450 tons/yr				

- 1.1 The emission factors listed in the table below have been approved by the Division and shall be used to calculate emissions from this unit (EPA's Compilation of Emission Factors (AP-42), dated September 1998, Section 1.1). Annual emissions for the purposes of APEN reporting and the payment of annual fees shall be calculated using the above emission factors and the annual coal usage, as required by Condition 1.2, in the following equation:

$$\text{Tons/yr} = \frac{[(\text{EF (lbs/ton)} \times \text{annual coal usage (tons/yr)})]}{2000 \text{ lbs/ton}}$$

Annual emissions of SO₂ and NO_x shall be determined from the Continuous Emission Monitors (CEMs) required by Condition 1.8.

- 1.2 Coal usage shall be monitored annually and recorded and maintained to be available to the Division upon request. Coal usage shall be determined using belt scales and corporate records as necessary.
- 1.3 Coal shall be sampled in accordance with the requirements identified in Condition 17. Vendor sample results from all coal shipments shall be used to determine the average heat, sulfur, moisture and ash content of the coal used in monitoring compliance with permit conditions.
- 1.4 Particulate Matter (PM) emissions shall not exceed the limitations stated above (Colorado Regulation No. 1, Section II.A.1.c). Compliance with this standard shall be monitored by the following:
- 1.4.1 Maintaining and Operating the baghouse in accordance with the requirements identified in Condition 13.1.

1.4.2 Conducting performance tests annually in accordance with Condition 13.2.

During each of the performance tests conducted as required by this condition, a baseline opacity limit shall be established for the compliance assurance monitoring (CAM) requirements specified in Condition 1.13. The value of the baseline opacity level is determined by averaging all of the 6-minute average opacity values (reported to the nearest 0.1 percent opacity) from the COMS measurement recorded during each of the test run intervals conducted for the performance test, and then adding the appropriate percent opacity (see table below) to the calculated average value for all of the test runs.

Results of PM performance test	Opacity to add-on
Less than or equal to 50% of the PM standard	5.0 %
Greater than 50% but less than or equal to 75 % of the PM standard	3.5 %
Greater than 75% of the PM standard	2.5 %

If the calculated opacity value (COMS average plus add-on) is less than 5.0 percent, then the opacity baseline level is set at 5.0 percent.

An initial performance test was conducted in July 2010 and the baseline opacity level has been set at the levels specified in Condition 20.1.2.

The permittee shall submit the proposed baseline opacity determined from any subsequent performance test for Division approval and begin monitoring under the new baseline within 45 calendar days of the test. The proposed baseline opacity submittal shall include the justification and supporting data for the proposed baseline opacity and any add-on values (e.g., 2.5% or 5.0% as indicated above). In addition, the permittee shall submit with the proposed baseline opacity a minor modification application to revise the permit to incorporate the proposed baseline opacity as the indicator range for the 24-hr average opacity.

1.4.3 Following the compliance assurance monitoring requirements specified in Condition 1.13.

- 1.5 Annual emissions of PM and PM₁₀ for the purposes of APEN reporting and payment of annual fees will be determined using the emission factor for PM determined from the most recent source testing required in Condition 1.4 and the annual average heat input to the boiler in the following equation:

$$\text{PM: Tons/yr} = \frac{[\text{EF (lbs/MMBtu)} \times \text{annual heat input (MMBtu/yr)}]}{2000 \text{ lbs/ton}}$$

$$\text{PM}_{10}: \text{Tons/yr} = 0.92 \times (\text{Annual Emissions of PM})$$

The annual heat input to the boiler, from coal, shall be determined using the annual coal consumption and the average heat content of the coal, as determined by the required coal sampling in Condition 1.3.

- 1.6 Sulfur Dioxide (SO₂) emissions shall not exceed 1.1 lbs/MMBtu, calculated as a 3 hour rolling average (Colorado Regulation No. 1, Section VII.A.3). Compliance with this standard shall be monitored using the continuous emission monitor (CEM) required by Condition 1.8 of this permit.
- 1.7 Nitrogen Oxide (NO_x) emissions shall not exceed 0.45 lbs/MMBtu, calculated as a 30-day rolling average (Colorado Regulation No. 1, Section VII.A.3). Compliance with this standard shall be monitored using the continuous emission monitor (CEM) required by Condition 1.8 of this permit.
- 1.8 For this unit, the source shall install, certify and operate continuous emission monitoring (CEM) equipment for measuring opacity, SO₂, NO_x (including diluent gas either CO₂ or O₂), CO₂ and volumetric flow (40 CFR Part 75). The CEM systems shall meet the requirements in Condition 14.
- 1.9 Annual emissions for the purposes of APEN reporting and the payment of annual fees shall be calculated as required by Condition 16.
- 1.10 Compliance with this standard shall be monitored in accordance with the requirements in Condition 15.1.
- 1.11 Compliance with this standard shall be monitored in accordance with the requirements in Condition 15.2.
- 1.12 This unit is subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be a complete and segregable portion of the Operating Permit.
- 1.13 This unit is subject to the Compliance Assurance Monitoring (CAM) requirements with respect to the PM limitation in Condition 1.4. Compliance with the CAM requirements shall be monitored in accordance with the requirements in Condition 20 and the CAM Plan in Appendix I.
- 1.14 **State-Only Requirements:** Unit 5 is subject to the Standards of Performance for Coal-Fired Electric Steam Generating Units in Colorado Regulation No. 6, Part B, Section VIII, as follows:
 - 1.14.1 This unit is currently considered a Low Emitter (LE), since actual emissions are no more than 29 pounds per year of mercury. This unit shall be routinely tested to verify LE status as follows (Colorado Regulation No. 6, Part B, Section VIII.B.10):

- 1.14.1.1 If actual emissions are less than or equal to 14 pounds of mercury per year, the source shall conduct performance testing on the unit annually using Division-approved methodology.
 - 1.14.1.2 If actual emissions are greater than 14 pounds but less than or equal to 29 pounds of mercury per year, the source shall conduct performance testing on the unit every six months using Division-approved methodology.
 - 1.14.2 The source shall submit written quarterly reports to the Division within 30 days of the end of each calendar quarter. The quarterly reports required shall include the unit's operating hours and lbs/yr of mercury emitted for each calendar quarter. Within 30 days of the end of each calendar year, the source shall also report the pounds of mercury emitted for the prior year. (Colorado Regulation No. 6, Part B, Section VIII.E.3.c and d)
- 1.15 This unit is subject to the following Regional Haze Requirements:
- 1.15.1 This unit (Valmont, Unit 5) shall be shutdown by December 31, 2017. (Colorado Regulation No. 3, Part F, Section VI.C.2)
 - 1.15.2 In addition to the above, the following SO₂ emission limitations apply (Colorado Regulation No. 3, Part G, Section IV.C.4):
 - 1.15.2.1 Between January 1, 2013 and December 31, 2015, Cherokee Units 3 and 4 and Valmont Unit 5, as a whole, shall not emit in excess of 4,200 tons per year of SO₂ as determined on a calendar year annual basis.
 - 1.15.2.2 Between January 1, 2016 and December 31, 2017, Cherokee Unit 4 and Valmont Unit 5, as a whole, shall not emit in excess of 3,450 tons per year of SO₂ as determined on a calendar year annual basis.
- Emissions from Unit 5 shall be determined using the SO₂ continuous emissions monitoring systems required by Condition 1.8 of this permit. Emissions from Cherokee Units 3 and 4 shall be determined using the SO₂ continuous emissions monitoring systems required by Operating Permit 96OPAD130.

2. B001 – Unit 5 Boiler, Rated at 1,845 MMBtu/hr, Natural Gas Fired

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor ¹	Monitoring	
		Short Term	Long Term		Method	Interval
Emission Calculations	2.1	N/A	N/A	EFs in lbs/MMscf SO ₂ - CEM NO _x - CEM CO- 24.0 VOC- 5.5	Continuous Emission Monitor, Recordkeeping and Calculation	Annually
Natural Gas Usage	2.2	N/A	N/A	N/A	Recordkeeping	Annually
Particulate Matter (PM)	2.3	0.1 lbs/MMBtu		N/A	Fuel Restriction	Whenever Natural Gas is Used as Fuel
Particulate Matter (PM and PM ₁₀) - Emission Calculations	2.4	N/A	N/A	EFs in lbs/MMscf PM - 1.9 PM ₁₀ - 1.9	Recordkeeping and Calculation	Annually
SO ₂	2.5	1.1 lbs/MMBtu		N/A	Fuel Restriction	Whenever Natural Gas is Used as Fuel
NO _x	2.6	0.45 lbs/MMBtu		N/A	Continuous Emission Monitor	Continuous, 30-Day Rolling Average
Continuous Emission Monitoring Requirements	2.7	N/A	N/A	N/A	See Condition 2.7.	
Opacity	2.8	Not to Exceed 20% Except as Provided for in Condition 2.9 Below		N/A	Continuous Opacity Monitor	Continuous, 6-Minute Intervals
Opacity	2.9	For Certain Operational Activities - Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes		N/A	Continuous Opacity Monitor	Continuous, 6-Minute Intervals
Acid Rain Requirements	2.10	See Section III of this Permit			Certification	Annually

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor ¹	Monitoring	
		Short Term	Long Term		Method	Interval
Regional Haze Requirements	2.11	Shutdown Unit 5 by 12/31/2017		N/A	See Condition 2.11.	
		Metro Units SO ₂ Emission Limitations: 1/1/2013 thru 12/31/2015: 4,200 tons/yr 1/1/2016 thru 12/31/2017: 3,450 tons/yr				

¹Emission factors are for uncontrolled emissions

- 2.1 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from this unit (EPA's Compilation of Emission Factors (AP-42), dated March 1998, Section 1.4). Annual emissions for the purposes of APEN reporting and payment of annual fees will be determined using the emission factors above and the annual natural gas usage, as required by Condition 2.2, in the following equation:

$$\text{Tons/yr} = \frac{[\text{EF (lbs/MMscf)} \times \text{annual natural gas usage (MMscf/yr)}]}{2000 \text{ lbs/ton}}$$

Annual emissions of SO₂ and NO_x shall be determined from the Continuous Emission Monitors (CEMs) required in Condition 2.7.

- 2.2 Natural gas usage shall be monitored annually and recorded and maintained to be available to the Division upon request. Natural gas usage shall be determined using fuel meters and corporate records as necessary.
- 2.3 Particulate Matter (PM) emissions shall not exceed the limitations stated above (Colorado Regulation No. 1, Section II.A.1.c). In the absence of credible evidence to the contrary, compliance with the particulate matter standard shall be presumed whenever natural gas is used as fuel in the boiler.
- 2.4 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from the boiler (EPA's Compilation of Emission Factors (AP-42), dated September 1998, Section 1.4). Annual emissions of PM and PM₁₀ for the purposes of APEN reporting and payment of annual fees will be determined using the emission factors above and the annual natural usage, as required by Condition 2.2, in the following equation:

$$\text{Tons/yr} = \frac{[\text{EF (lbs/MMscf)} \times \text{annual natural gas usage (MMscf/yr)}]}{2000 \text{ lbs/ton}}$$

Note that if the baghouse has been operated and maintained in accordance with the requirements in Condition 13.1, then an efficiency of 99.9 % can be applied to the above equation.

- 2.5 Sulfur Dioxide (SO₂) emissions shall not exceed 1.1 lbs/MMBtu, calculated as a 3 hour rolling average (Colorado Regulation No. 1, Section VII.A.3). In the absence of credible evidence to the contrary, compliance with the SO₂ standard shall be presumed whenever natural gas is used as fuel in the boiler.
- 2.6 Nitrogen Oxide (NO_x) emissions shall not exceed 0.45 lbs/MMBtu, calculated as a 30-day rolling average (Colorado Regulation No. 1, Section VII.A.3). Compliance with this standard shall be monitored using the continuous emission monitor (CEM) required by Condition 2.7.
- 2.7 For this unit, the source shall install, certify and operate continuous emission monitoring (CEM) equipment for measuring opacity, SO₂, NO_x (including diluent gas either CO₂ or O₂), CO₂ and volumetric flow (40 CFR Part 75). The CEM systems shall meet the requirements in Condition 14.
- 2.8 Compliance with this standard shall be monitored in accordance with the requirements in Condition 15.1.
- 2.9 Compliance with this standard shall be monitored in accordance with the requirements in Condition 15.2.
- 2.10 This unit is subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be a complete and segregable portion of the Operating Permit. As such the requirements are found in Section III of this permit.
- 2.11 This unit is subject to the Regional Haze Requirements set forth in Condition 1.15 of this permit.

3. B001 – Unit 5 Boiler, Rated at 1,845 MMBtu/hr, Combination Coal/Natural Gas Fired

- 3.1 Any combination of the fuels identified may be burned in the boiler provided the most stringent requirements and periodic monitoring shall be followed for the combination of fuels burned. The most stringent periodic monitoring requirements are for coal-firing of the unit.

4. T001 - Turbine, Rated at 570 MMBtu/hr, Natural Gas Fired

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor (lbs/MMBtu)	Monitoring	
		Short Term	Long Term		Method	Interval
Emission Calculations	4.1	N/A	N/A	PM – 2.1×10^{-3} PM ₁₀ – 2.1×10^{-3} SO ₂ – 3.8×10^{-3} NO _x - 0.35 CO - 0.091 VOC - 2.3×10^{-3}	Recordkeeping and Calculation	Annually
Natural Gas Use	4.2	N/A	N/A	N/A	Fuel Meter	Annually
Btu Content of Gas	4.3	N/A	N/A	N/A	ASTM Analysis Methods	Annually
Particulate Matter (PM)	4.4	0.1 lbs/MMBtu		N/A	Fuel Restriction	Whenever Natural Gas is Used as Fuel
SO ₂	4.5	0.8 lbs/MMBtu		N/A	Fuel Restriction	Whenever Natural Gas is Used as Fuel
Opacity	4.6	Not to Exceed 20%		N/A	Fuel Restriction	Whenever Natural Gas is Used as Fuel

- 4.1 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from this turbine (EPA's Compilation of Emission Factors (AP-42), dated April 2000, Section 3.1, corrected to a lower heating value basis). Annual emissions for the purposes of APEN reporting and payment of annual fees shall be calculated using the above emission factors and the annual natural gas usage, as required by Condition 4.2, in the following equation:

$$\text{Tons/yr} = \frac{[\text{annual natural gas usage (MMscf/yr)} \times \text{EF (lbs/MMBtu)} \times \text{heat content of gas (MMBtu/MMscf)}]}{2000 \text{ lbs/ton}}$$

- 4.2 Natural gas usage shall be monitored annually and recorded and maintained to be available to the Division upon request. Natural gas usage shall be determined using fuel meters and corporate records as necessary.
- 4.3 The Btu Content of the natural gas burned shall be determined annually using the appropriate ASTM Methods, or equivalent, if approved in advance by the Division. Calculation of annual emissions outlined under Condition 4.1 shall be based on the most recent Btu analysis. The Btu content shall be based on the lower heating value of the fuel.

- 4.4 Particulate Matter (PM) emissions shall not exceed 0.1 lbs/MMBtu (Colorado Regulation No. 1, Section III.A.1.c). In the absence of credible evidence to the contrary, compliance with the particulate matter standard shall be presumed whenever natural gas is used as fuel in the turbine.
- 4.5 Sulfur Dioxide emissions shall not exceed 0.8 lbs/MMBtu (Colorado Regulation 1, Section VI.A.3.c.(ii)). In the absence of credible evidence to the contrary, compliance with the SO₂ standard shall be presumed whenever natural gas is used as fuel in the turbine.
- 4.6 No owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity standard shall be presumed whenever natural gas is used as fuel in the turbine.

5. T001 - Turbine, Rated at 570 MMBtu/hr, No. 2 Fuel Oil Fired

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor ¹ (lbs/MMBtu)	Monitoring	
		Short Term	Long Term		Method	Interval
Emission Calculations	5.1	N/A	N/A	PM - 4.3×10^{-3} PM ₁₀ - 4.3×10^{-3} SO ₂ - 1.01S NO _x - 0.880 CO - 3.3×10^{-3} VOC - 4.1×10^{-4}	Recordkeeping and Calculation	Annually
No. 2 Fuel Oil Use	5.2	N/A	N/A	N/A	Fuel Meter	Annually
Particulate Matter (PM)	5.3	0.1 lbs/MMBtu		N/A	Fuel Restriction	Whenever No. 2 Fuel Oil is Used as Fuel
SO ₂	5.4	0.8 lbs/MMBtu		N/A	Fuel Restriction	Whenever No. 2 Fuel Oil is Used as Fuel
Restrictions on Use of Fuel Oil as Back-up	5.5	No Fuel Oil Burning from November 1 - March 1 of Each Year Except as Specified in Condition 5.5.		N/A	Recordkeeping and Notification	Whenever No. 2 Fuel Oil is Used as Fuel
Recordkeeping and Reporting for Use of Fuel Oil	5.6	N/A	N/A	N/A	Recordkeeping and Reporting	Daily with Annual Report When Burning No. 2 Fuel Oil Under Condition 5.5.
Opacity	5.7	Not to Exceed 20%		N/A	EPA Reference Method 9	See Condition 5.7.

¹S = weight percent sulfur in fuel

- 5.1 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from this turbine (EPA's Compilation of Emission Factors (AP-42), dated April 2000, Section 3.1). Annual emissions for the purposes of APEN reporting and the payment of annual fees shall be calculated using the above emission factors and the annual No. 2 fuel oil usage, as required by Condition 5.2, in the following equation:

$$\text{Tons/yr} = \frac{[\text{annual No. 2 fuel oil use (gal/yr)} \times \text{EF (lbs/MMBtu)} \times \text{heat content of No. 2 fuel oil (Btu/gal)} \times (1 \text{ MMBtu}/10^6 \text{ Btu})]}{2000 \text{ lbs/ton}}$$

Note that in these calculations, the heat content of the No. 2 fuel oil will be presumed to be 140,000 Btu/gallon per AP-42, Appendix A, Page A-5, dated September 1985 (reformatted January 1995). The sulfur content of the No. 2 fuel oil will be presumed to be 0.5 weight percent.

- 5.2 No. 2 fuel oil usage shall be monitored annually and recorded and maintained to be available to the Division upon request. No. 2 fuel oil usage shall be determined using the fuel meters and corporate records as necessary.
- 5.3 Particulate Matter (PM) emissions shall not exceed 0.1 lbs/MMBtu (Colorado Regulation No. 1, Section III.A.1.c). In the absence of credible evidence to the contrary, compliance with the PM limitation is presumed whenever No. 2 fuel oil is burned as fuel.
- 5.4 Sulfur Dioxide emissions shall not exceed 0.8 lbs/MMBtu (Colorado Regulation No. 1, Section VI.A.3.c.(ii)). In the absence of credible evidence to the contrary, compliance with the SO₂ limitation is presumed whenever No. 2 fuel oil is burned as fuel.

Note that this presumption is based on No. 2 fuel having a sulfur content no greater than 0.5 weight percent and a heat content no less than 88,125 Btu/gallon.

- 5.5 This facility shall not burn No. 2 fuel oil from November 1 to March 1 for each year except under the following circumstances (Colorado Regulation No. 1, Section VIII.B):
- 5.5.1 The supplier or transporter of natural gas imposes a curtailment or an interruption of service.
- 5.5.2 For necessary testing of equipment used to operate the unit on oil, testing of fuel and training of personnel.
- 5.5.3 When an equipment malfunction at the facility makes it impossible or unsafe for the unit to operate on natural gas.
- 5.6 As provided by Colorado Regulation No. 1, Sections VIII.C, when burning No. 2 fuel oil under Condition 5.5 above, the following records identified below shall be maintained and made available to the inspector upon request. These records shall be maintained for a period of five (5) years as specified in Section V, Condition 22 of this permit.
- 5.6.1 dates and number of hours fuel oil is burned
- 5.6.2 percent sulfur analysis of the fuel oil that is burned
- 5.6.3 number of gallons burned each day
- 5.6.4 reason(s) for the use of the fuel oil

In addition this information is to be submitted, in a report, to the Division, before April 1, annually as specified in Regulation No.1, Section VIII.D.

- 5.7 No owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1).

Compliance with this standard shall be monitored by conducting emission observations in accordance with EPA Reference Method 9. Readings shall be conducted annually. Results of Method 9 readings and a copy of the certified Method 9 reader's certification shall be made available to the Division upon request.

6. T001 - Turbine, Rated at 570 MMBtu/hr, Combination Natural Gas/No. 2 Fuel Oil Fired

- 6.1 Any combination of the fuels identified may be burned in the turbine provided the most stringent requirements and periodic monitoring shall be followed for the combination of fuels burned. The most stringent periodic monitoring requirements are for No. 2 fuel oil, followed by natural gas.

7. Diesel Fuel Fired Emergency Fire Pump Engine – 360 hp

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
SO ₂	7.1	0.8 lbs/MMBtu		N/A	Fuel Restriction	Only Diesel Fuel is Used as Fuel
Opacity	7.2	Not to Exceed 20% Except as Provided for Below		N/A	EPA Method 9	See Condition 7.2
		For Startup – Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes				
MACT ZZZZ Requirements	7.3	Change Oil and Filter Inspect Air Cleaner Inspect all Hoses and Belts		N/A	See Condition 7.3	

Note that this emission unit is exempt from the APEN reporting requirements in Regulation No. 3, Part A and the minor source construction permit requirements provided actual uncontrolled emissions do not exceed the APEN de minimis level (1 ton/yr).

- 7.1 Sulfur Dioxide (SO₂) emissions from this engine shall not exceed 0.8 lbs/MMBtu (Colorado Regulation No. 1, Section VI.B.4.b.(i)). In the absence of credible evidence to the contrary, compliance with the SO₂ emission limitation shall be presumed since only diesel fuel is permitted to be used as fuel in these engines. The permittee shall maintain records that verify that only diesel fuel is used as fuel in these engines.
- 7.2 Opacity of emissions from this engine shall not exceed the following:
- 7.2.1 Except as provided for in Condition 7.2.2 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1).

- 7.2.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from startup which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

Compliance with these limitations shall be monitored by conducting opacity observations in accordance with EPA Reference Method 9 as follows:

- 7.2.3 As specified in Conditions 7.3.2.4 and 7.3.7 engine startup shall not exceed 30 minutes. An engine startup period of less than 30 minutes shall not require an opacity observation to monitor compliance with the opacity limit in Condition 7.2.2. A record shall be kept of the date and time each engine was started and when it was shutdown.
- 7.2.4 An opacity observation shall be conducted annually (calendar year period) on this engine to monitor compliance with the opacity limit in Condition 7.2.1. If an engine is operated more than 250 hours in any calendar year period, a second opacity observation shall be conducted. If two opacity readings are conducted in the annual (calendar year) period, such readings shall be conducted at least thirty days apart.
- 7.2.5 If the engine is not operated during the annual (calendar year) period, then no opacity observation is required.
- 7.2.6 Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit.
- 7.2.7 All opacity observations shall be performed by an observer with current and valid Method 9 certification. Results of Method 9 readings and a copy of the certified Method 9 reader's certificate shall be kept on site and made available to the Division upon request.
- 7.3 Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as follows:

The requirements below reflect the language in 40 CFR Part 63 Subpart ZZZZ as of the date of revised permit issuance [November 20, 2012]. However, this engine is subject to the latest version of Subpart ZZZZ.

These requirements included in this Condition 7.3 are only federally enforceable. As of the date of revised permit issuance [November 20, 2012], the requirements in 40 CFR Part 63 Subpart ZZZZ promulgated after July 1, 2007 have not been adopted into Colorado Regulation No. 8, Part E by the Division and are therefore not state-enforceable. In the event that the Division

adopts these requirements the emergency fire pump engine will be subject to the APEN reporting and minor source permitting requirements and these requirements will be state-enforceable.

Proposed revisions to the 40 CFR Part 63 Subpart ZZZZ were published in the Federal Register on June 7, 2012. The proposed revisions include changes to periods under which emergency engines may be operated (Condition 7.3.10). Therefore, these requirements may change in the future when the proposed rule is finalized.

When do I have to comply with this subpart (§ 60.6595)

- 7.3.1 If you have an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. (§ 63.6595(a)(1))

What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions (§ 63.6602)

- 7.3.2 If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c of 40 CFR Part 63 Subpart ZZZZ which apply to you. Compliance with the numerical emission limitations established of 40 CFR Part 63 Subpart ZZZZ is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 of 40 CFR Part 63 Subpart ZZZZ. (§ 63.6602)

Note that this engine is not subject to emission limitations but is subject to work practice standards.

The requirements in Table 2c of 40 CFR Part 63 Subpart ZZZZ that apply to this engine, except during periods of startup are as follows:

- 7.3.2.1 Change oil and filter every 500 hours of operation or annually whichever comes first. (40 CFR Part 63 Subpart ZZZZ, Table 2c, item 1.a)
- 7.3.2.2 Inspect air cleaner every 1,000 hours of operation or annually whichever comes first. (40 CFR Part 63 Subpart ZZZZ, Table 2c, item 1.b)
- 7.3.2.3 Inspect all hoses and belts every 500 hours of operation or annually whichever comes first, and replace as necessary. (40 CFR Part 63 Subpart ZZZZ Table 2c, item 1.c)

The requirements in Table 2c of 40 CFR Part 63 Subpart ZZZZ that apply to this engine during periods of startup are as follows:

- 7.3.2.4 Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. (40 CFR Part 63 Subpart ZZZZ Table 2c, item 1)

Notwithstanding the above requirements, the following applies:

- 7.3.2.5 If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Conditions 7.3.2.1 through 7.3.2.3, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. (40 CFR Part 63 Subpart ZZZZ, Table 2c, footnote 1)
- 7.3.2.6 Sources have the option to utilize an oil analysis program as described in Condition 7.3.8 in order to extend the specified oil change requirement in Condition 7.3.2.1. (40 CFR Part 63 Subpart ZZZZ, Table 2c, footnote 2)
- 7.3.2.7 Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. (40 CFR Part 63 Subpart ZZZZ, Table 2c, footnote 3)

What are my general requirements for complying with this subpart? (§ 63.6605)

- 7.3.3 You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times. (§ 63.6605(a))
- 7.3.4 At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (§ 63.6605(b))

What are my monitoring, installation, collection, operation, and maintenance requirements? (§ 63.6625)

- 7.3.5 If you own or operate an existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (§ 63.6625 (e) and (e)(2))
- 7.3.6 If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed. (§ 63.6625(f))
- 7.3.7 If you operate a new or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d of 40 CFR Part 63 Subpart ZZZZ apply. (§ 63.6625(h))
- 7.3.8 If you own or operate a stationary engine that is subject to the work, operation or management practices in Condition 7.3.2.1, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 7.3.2.1. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 7.3.2.1. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil before continuing to use the engine. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. (§ 63.6625(i))

How do I demonstrate continuous compliance with the emission limitations and operating limitations? (§ 63.6640)

- 7.3.9 You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d

[Conditions 7.3.2.1 through 7.3.2.3] to this subpart that apply to you according to methods specified in Table 6 to this subpart. (§ 63.6640(a)) The methods specified in Table 6 of Subpart ZZZZ are as follows:

- 7.3.9.1 Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions (Subpart ZZZZ, Table 6, item 9.a.i); or
- 7.3.9.2 Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (Subpart ZZZZ, Table 6, item 9.a.ii)
- 7.3.10 If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements Conditions 7.3.10.1 through 7.3.10.3. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in Conditions 7.3.10.1 through 7.3.10.3, is prohibited. If you do not operate the engine according to the requirements in Conditions 7.3.10.1 through 7.3.10.3, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines. (§ 63.6640(f)(1))
 - 7.3.10.1 There is no time limit on the use of emergency stationary RICE in emergency situations. (§ 63.6640(f)(1)(i))
 - 7.3.10.2 You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. (§ 63.6640(f)(1)(ii))
 - 7.3.10.3 You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to

generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph Condition 7.3.10.3, as long as the power provided by the financial arrangement is limited to emergency power. (§ 63.6640(f)(1)(iii))

What records must I keep? (§ 63.6655)

- 7.3.11 You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate an existing stationary emergency RICE. (§ 63.6655(e) and § 63.6655(e)(2))
- 7.3.12 If you own or operate an existing emergency stationary CI RICE with a site rating of less than or equal to 500 brake Hp located at major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. (§ 63.6655(f) and § 63.6655(f)(1))

In what form and how long must I keep my records? (§ 63.6660)

- 7.3.13 Records shall be kept in the form and for the duration specified in § 63.6660.

What parts of the General Provisions apply to me? (§ 63.6665)

7.3.14 Table 8 of Subpart ZZZZ shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. (§ 63.6665) The general provisions that apply to this engine include, but are not limited to the following:

7.3.14.1 Prohibited activities in § 63.4(a).

7.3.14.2 Circumvention in § 63.4(b)

8. Fugitive Particulate Emissions

F001 - Coal Handling and Transportation

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM and PM ₁₀	8.1	N/A	N/A	N/A	Recordkeeping and Calculation	As Needed
Minimize Emissions	8.2	N/A	N/A	N/A	Certification	Semi-Annually

F002 - Ash Handling and Transportation

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM and PM ₁₀	8.1	N/A	N/A	N/A	Recordkeeping and Calculation	As Needed
Minimize Emissions	8.2	N/A	N/A	N/A	Certification	Semi-Annually

F003 - Vehicle Travel on Paved and Unpaved Roads

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM and PM ₁₀	8.1	N/A	N/A	N/A	Recordkeeping and Calculation	As Needed
Minimize Emissions	8.2	N/A	N/A	N/A	Certification	Semi-Annually

8.1 Fugitive particulate emissions are subject to the General Conditions in Section V of this Permit including Recordkeeping and Reporting requirements listed under Conditions 22.

8.2 The source shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions (Colorado Regulation 1, Section II.D.1.a).

- 8.2.1 A fugitive dust control plan, or modification to an existing plan, shall be required to be submitted if the Division determines that for this source or activity visible emissions are in excess of 20% opacity; or visible emissions are being transported off the property; or if this source or activity is operating with emissions that create a nuisance. The control plan shall be submitted to the Division within the time period specified by the Division (Colorado Regulation No. 1, Section III.D.1.c). The 20% opacity, no off-property transport, and nuisance emission limitations are guidelines and not enforceable standards and no person shall be cited for violation thereof pursuant to C.R.S. 25-7-115 (Colorado Regulation No. 1, Section III.D.1.e.(iii)).

9. P001 - Ash Silo

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	9.1	N/A	5.4 tons/yr	Loading/Enclosed Truck Unloading - 0.61 lbs/ton Open Truck Unloading - 1.5 lbs/ton	Baghouse/Water Spray Inspection and Maintenance and Calculation	See Condition 9.1.
PM ₁₀		N/A	5.4 tons/yr	Loading/Enclosed Truck Unloading - 0.61 lbs/ton Open Truck Unloading - 1.5 lbs/ton		
Ash and Spent Sorbent Processed	9.2	N/A	71,386 tons/yr	N/A	Recordkeeping and Calculation	Monthly
Opacity	9.3	Less Than or Equal to 20%		N/A	See Condition 9.3.	

- 9.1 Particulate Matter (PM and PM₁₀) emissions shall not exceed the limitations stated above (As provided for under the provisions of Section I, Condition 1.3, with emissions as requested in comments on the draft permit received 4/27/01). Compliance with these limitations shall be monitored as follows:

- 9.1.1 The ash silo baghouse shall be operated and maintained in accordance with good engineering practices.
- 9.1.2 When unloading into an open truck, the water spray system shall be operated and maintained in accordance with good engineering practices.
- 9.1.3 When unloading into an enclosed truck the hose is attached, operated and maintained in accordance with good engineering practices.

- 9.1.4 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from this unit (EPA's Compilation of Air Pollutant (AP-42) Emission Factors, dated January 1995, Section 11.17). Emissions shall be calculated by the end of the subsequent month using the above emission factors and the monthly ash and spent sorbent processed, as required by Condition 9.2, in the following equations:

Ash Silo Emissions = silo loading + open truck unloading + enclosed truck unloading

Where:

Silo loading (tons/mo) = $\frac{0.61 \text{ lbs/ton} \times \text{monthly ash/spent sorbent loaded (tons/mo)}}{2000 \text{ lbs/ton}}$

Control efficiency = 99.9%

Enclosed truck unloading (tons/mo) = $\frac{0.61 \text{ lbs/ton} \times \text{monthly ash/spent sorbent unloaded (tons/mo)}}{2000 \text{ lbs/ton}}$

Control efficiency = 95%

Open truck unloading (tons/mo) = $\frac{1.5 \text{ lbs/ton} \times \text{monthly ash/spent unloaded to open truck (tons/mo)}}{2000 \text{ lbs/ton}}$

Control efficiency = 90%

Note that the control efficiencies identified above can be applied to the emission calculations as follows provided the requirements in Conditions 9.1.1, 9.1.2 and 9.1.3 have been met.

Note that emissions may be calculated presuming all ash is unloaded into an open truck.

Monthly ash silo emissions shall be used in a twelve month rolling total to monitor compliance with annual limitations. Each month, a new twelve month total shall be calculated using the previous twelve months data.

- 9.2 Ash and Spent Sorbent Processed through the silo shall not exceed the limitation stated above (As provided for under the provisions of Section I, Condition 1.3, with emissions as requested in comments on the draft permit received 4/27/01). Compliance with the ash and spent sorbent processing limit shall be monitored by determining the quantity of fly ash and spent sorbent processed monthly. The quantity of ash processed through the ash silo shall be determined using the average ash content of the coal, as determined through coal sampling required in Condition 1.3 and coal consumption records (Condition 1.2). An 80% fly-ash factor shall be assumed. The quantity of fly ash shall be increased by 25% to account for the spent sorbent. Monthly quantities of ash and spent sorbent processed shall be used in a twelve month rolling total to monitor compliance with annual limitations. Each month, a new twelve month total shall be calculated using the previous twelve months data.

- 9.3 Opacity emissions from the ash silo baghouse vent, the dry ash unloading process (enclosed truck) and wet ash unloading process (open truck) shall not exceed 20% (Colorado Regulation No. 1, Section II.A.1).
- 9.3.1 In the absence of credible evidence to the contrary, the ash silo baghouse vent shall be presumed to be in compliance with the 20% opacity requirement provided the requirements in Condition 9.1.1 have been met.
- 9.3.2 In the absence of credible evidence to the contrary, the dry ash unloading process will be presumed to be in compliance with the 20% opacity requirement provided the requirements in Conditions 9.1.1 and 9.1.3 have been met.
- 9.3.3 In the absence of credible evidence to the contrary, the wet ash unloading process will be presumed to be in compliance with the 20% opacity requirement provided the requirements in Condition 9.1.2 have been met.

10. P002 - Coal Handling System (Conveyors and Crusher)

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	10.1	N/A	0.53 tons/yr	See Condition 10.1.	See Condition 10.1.	
PM ₁₀		N/A	0.19 tons/yr			
Coal Processed	10.2	N/A	720,000 tons/yr	N/A	Recordkeeping and Calculation	Monthly
NSPS General Provisions	10.3	N/A	N/A	N/A	As Required by NSPS General Provisions	Subject to NSPS General Provisions
Opacity	10.4	Not to Exceed 20%		N/A	See Condition 10.4	
NSPS Opacity	10.5	Less Than 20%		N/A	See Condition 10.5	

- 10.1 Particulate Matter (PM and PM₁₀) emissions, from the upgraded coal handling system, shall not exceed the limitations stated above (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part C, Sections I.A.7 and III.B.7, based on the APEN submitted on May 12, 2004). Compliance with the annual limitations shall be monitored as follows:
- 10.1.1 The conveyors shall be enclosed and the integrity of the enclosures maintained. Water spray suppression systems for the conveyors shall be used as necessary.
- 10.1.2 The crusher shall be enclosed and located in a building and the integrity of the crusher enclosure and building shall be maintained.
- 10.1.3 The moisture content of the coal, as determined through coal sampling required by Condition 1.3, shall not be less than 4.5%.

- 10.1.4 The number of transfer points in the coal handling system shall not be increased. Note that permitted emissions are based on 5 transfer points.
- 10.1.5 In the absence of credible evidence to the contrary, compliance with the PM and PM₁₀ emission limitations shall be presumed, provided the requirements in Conditions 10.1.1 through 10.1.4 are met and that the coal handling limit identified in Condition 10.2 is met.
- 10.2 The quantity of coal processed through the coal handling system shall not exceed the above limitation (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part C, Sections I.A.7 and III.B.7, based on the APEN submitted on May 12, 2004). The quantity of coal processed through the coal handling system shall be monitored and recorded monthly. The quantity of coal processed shall be determined using belt scales and corporate records as necessary. Monthly quantities of coal handled shall be used in a twelve month rolling total to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months data.
- 10.3 The coal handling system is subject to the requirements in 40 CFR Part 60 Subpart A - General Provisions, as adopted by reference in Colorado Regulation No. 6, Part A. Specifically, the coal handling system is subject to the following requirements:
 - 10.3.1 At all times, including periods of startup, shutdown, and malfunction owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (40 CFR Part 60 Subpart A § 60.11(d) as adopted by Reference in Colorado Regulation No. 6, Part A).
 - 10.3.2 No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere (40 CFR Part 60 Subpart A § 60.12, as adopted by reference in Colorado Regulation No. 6, Part A).
 - 10.3.3 The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility or any malfunction of the air pollution control equipment (40 CFR Part 60 Subpart A § 60.7(b), as adopted by reference in Colorado Regulation No. 6, Part A).

- 10.4 Opacity of emissions from the coal crusher and coal handling system shall not exceed 20% (Colorado Regulation No.1, Section II.A.1). Compliance with the opacity requirements shall be monitored as follows:
- 10.4.1 In the absence of credible evidence to the contrary, the coal handling system shall be presumed to be in compliance with the 20% opacity requirement provided the requirements in Conditions 10.1.1 and 10.1.2 are met.
- 10.4.2 A six (6) minute EPA Method 9 opacity observation shall be conducted annually on the cyclone exhaust vent stack. Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit. The EPA Reference Method 9 opacity observations shall be performed by an observer with current and valid Method 9 certification. All observations shall be recorded and kept on site to be made available to the Division upon request.
- 10.5 The owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system or coal transfer and loading system processing coal, gases which exhibit 20% opacity or greater (40 CFR Part 60 Subpart Y § 60.252, as adopted by reference in Colorado Regulation No. 6, Part A). Compliance with the opacity requirement shall be monitored as follows:
- 10.5.1 In the absence of credible evidence to the contrary, the coal handling system shall be presumed to be in compliance with the opacity requirements provided the requirements in Conditions 10.1.1 through 10.1.2 are met.
- 10.5.2 In the absence of credible evidence to the contrary, compliance with the opacity standard for the transfer tower/tripper deck and crusher baghouses is presumed provided the visible emission observations required by Condition 10.4.2 meets the opacity standard specified in Condition 10.5.

This opacity standard applies at all times except during periods of startup, shutdown and malfunction (40 CFR Part 60 Subpart A § 60.11(c), as adopted by reference in Colorado Regulation No. 6, Part A), however, at all times the permittee shall use good operating practices as required in Condition 10.3.1.

11. M001 – System One Cold Cleaner Solvent Vat

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Work Practice Standards	11.1	N/A	N/A	N/A	Internal Audit	Annually
Transfer and Storage of Waste/Used Solvents	11.2	N/A	N/A	N/A	Certification	Annually

Note that this emission unit is exempt from the APEN reporting requirements in Regulation No. 3, Part A and the construction permit requirements in Regulation No. 3, Part B.

- 11.1 Operation of this cold cleaner solvent vat shall meet the standards defined in Colorado Regulation 7, Section X.B. Compliance shall be monitored by following the work practices defined in Public Service Company's Policy Manual regarding operation, maintenance and design of the cold cleaner solvent vats. The Policy Manual shall include, at a minimum the requirements defined in Colorado Regulation 7, Section X.B and shall be available to the inspector upon request. Audits of the vat operations and/or the policy manual shall be performed annually to ensure that operations are performed within the requirements of the policy manual and that the policy manual incorporates the requirements of Regulation 7, Section X.B. Audit reports are to be maintained and made available to the Division upon request.
- 11.2 The transfer and storage of waste and used solvents from the cold cleaner solvent vats are subject to the following requirements (Colorado Regulation No. 7, Section X.A.3 and 4):
- 11.2.1 In any disposal or transfer of waste or used solvent, at least 80 percent by weight of the solvent/waste liquid shall be retained (i.e., no more than 20 percent of the liquid solvent/solute mixture shall evaporate or otherwise be lost during transfers).
- 11.2.2 Waste or used solvents shall be stored in closed containers unless otherwise required by law.

12. Emission Factors

The permittee shall comply with the provisions of Regulation No. 3 concerning APEN reporting. Emission factors that are approved compliance factors specified within this permit cannot be adjusted without requiring a permit modification. Emission factors and/or other emission estimating methods used only to comply with the reporting requirements of this regulation can be updated and modified as specified. These changes by themselves, do not require any permitting activities though the resulting emission estimate may trigger permitting activities.

13. Particulate Matter Emission Periodic Monitoring Requirements

13.1 Operation and Maintenance Requirements

The boiler baghouse shall be maintained and operated in accordance with good engineering practices. Any maintenance performed on the boiler baghouse shall be documented and made available to the Division upon request.

13.2 Stack Testing

Stack testing for particulate matter emissions shall be performed on the main boiler within 180 days of renewal permit issuance [March 1, 2010] in accordance with the requirements and procedures set forth in EPA Test Method 5 as set forth in 40 CFR Part 60, Appendix A. Frequency of testing, thereafter shall be annual except that: (1) if the first test required by this renewal permit or any subsequent test results indicate emissions are less than or equal to 50% of the emission limit, another test is required within five years; (2) if the first test required by this renewal permit or any subsequent test results indicate emissions are more than 50%, but less than or equal to 75% of the emission limit, another test is required within three years; (3) if the first test required by this renewal permit or any subsequent test results indicate emissions are greater than 75% of the emission limit, an annual test is required until the provisions of (1) or (2) are met.

A stack testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to any performance of the test required under this condition. No stack test required herein shall be performed without prior written approval of the protocol by the Division. The Division reserves the right to witness the test. In order to facilitate the Division's ability to make plans to witness the test, notice of the date (s) for the stack test shall be submitted to the Division at least thirty (30) calendar days prior to the test. The Division may for good cause shown, waive this thirty (30) day notice requirement. In instances when a scheduling conflict is presented, the Division shall immediately contact the permittee in order to explore the possibility of making modifications to the stack test schedule. The required number of copies of the compliance test results shall be submitted to the Division within forty-five (45) calendar days of the completion of the test unless a longer period is approved by the Division.

14. Continuous Emission Monitoring and Continuous Opacity Monitoring Systems

14.1 CEM and COM Monitoring Systems QA/QC Plan

Continuous Emission Monitoring (CEM) and Continuous Opacity Monitoring (COM) systems are required for measurement of the stack SO₂, CO₂, NO_x (and diluent monitor for either CO₂ or O₂), gas flow rate and opacity emissions. The quality assurance/quality control plan required by 40 CFR Part 75, Appendix B shall be made available to the Division upon request. Revisions shall be made to the plan at the request of the Division.

14.2 General Provisions

- 14.2.1 The permittee shall ensure that all continuous emission and opacity monitoring systems required are in operation and monitoring unit emissions or opacity at all times that the boiler combusts any fuel except as provided in 40 CFR § 75.11(e) and during periods of calibration, quality assurance, or preventative maintenance performed pursuant to 40 CFR Part 75 § 75.21 and Appendix B, periods of repair, periods of backups of data from a data acquisition and handling system or recertification performed pursuant to 40 CFR Part 75 § 75.20. The permittee shall also ensure, subject to the exceptions just noted, that the continuous opacity monitoring systems required are in operation and monitoring opacity during the time following combustion when fans are still operating unless fan operation is not required to be included under any other applicable requirement (40 CFR Part 75 § 75.10(d)).
- 14.2.2 An alternative monitoring system, alternative reference method, or any other alternative for the required continuous emission monitoring systems shall not be used without having obtained prior written approval from the appropriate agency, either the Division or the U.S. EPA, depending on which agency is authorized to approve such alternative under applicable law. Any alternative continuous emission monitoring systems or continuous opacity monitoring systems must be certified in accordance with the requirements of 40 CFR Part 75 prior to use.
- 14.2.3 All test and monitoring equipment, methods, procedures and reporting shall be subject to the review and approval by the appropriate agency, either the Division or the U.S. EPA, depending on which agency is authorized to approve such items under applicable law, prior to any official use. The Division shall have the right to inspect such equipment, methods and procedures and data obtained at any time. The Division shall provide a witness(s) for any and all tests as Division resources permit.
- 14.2.4 A file shall be maintained of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by applicable portions of 40 CFR Part 75 recorded in a permanent form suitable for inspection.
- 14.2.5 Records shall be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

14.3 Continuous Emission Monitoring (CEM) Systems

- 14.3.1 The Continuous Emission Monitoring (CEM) Systems are subject to the requirements of 40 CFR Part 75. Each monitoring system shall meet the equipment, installation and performance specifications of 40 CFR Part 75, Appendix A.
- 14.3.2 The permittee shall follow the 40 CFR Part 75 quality assurance and quality control procedures of Appendix B and the conversion procedures of Appendix F. For purposes of monitoring compliance with the SO₂ emission limitations in Condition 1.6, hourly SO₂ data shall be converted to lbs/MMBtu in accordance with the procedures in 40 CFR Part 60 Appendix A, Method 19.

14.4 Continuous Opacity Monitoring (COM) Systems

- 14.4.1 The Continuous Opacity Monitoring (COM) Systems are subject to the requirements of 40 CFR Part 75. Each continuous opacity monitoring system shall meet the design, installation, equipment and performance specifications in 40 CFR Part 60, Appendix B, Performance Specification 1.
- 14.4.2 The permittee shall check the zero and span drift of the system at least once per day and at such other times as designated by the Division, according to procedures approved by the Division. The Division may also make such determinations in order to assure proper quality assurance (Colorado Regulation No. 1, Section IV.F).
- 14.4.3 When the opacity monitoring system is unable to provide quality assured data in accordance with 40 CFR Part 75 for more than eight (8) consecutive hours, the source shall utilize either a backup opacity monitor or EPA Reference Method 9, or an "Operating Report During Monitor Unavailability" to satisfy the requirements for periodic monitoring under 40 CFR 70 and Colorado Regulation No. 3.

If backup monitors are used, the next quarterly report submitted by the source shall identify the dates and times the backup monitors were in use.

If EPA Reference Method 9 observations are used, visual observations in accordance with the reference method shall be taken and recorded by the source whenever the source is in operation and while fuel is present in the boiler.

When such circumstances exist, the visual observations shall be performed by a certified opacity observer each 24 hour period thereafter over a thirty minute period until the opacity monitoring system is again able to provide quality assured data. If a visual emissions observation cannot be performed in accordance with EPA Reference Method 9, the source shall record the reasons why that is the case. Subject to the provisions of C.R.S. § 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method

9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit.

If an "Operating Report During Monitor Unavailability" is used, the source shall record the opacity monitor registered reading prior to the monitor unavailability period and that immediately following such periods. A source must also record and maintain a description of unit operating characteristics that demonstrate the likelihood of compliance with the applicable opacity limitation. Such operating circumstances shall be identified on a unit specific basis and provided to the Division and shall include information related to the operation of the control equipment and any other operational parameters that may affect opacity.

14.5 Notification and Recordkeeping

The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the calendar month following the end of each calendar quarter, a report of excess emissions for all pollutants monitored for that quarter. This report shall consist of the following information and/or reporting requirements as specified by the Division.

- 14.5.1 The magnitude of excess emissions computed in accordance with Division guidelines, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions (Colorado Regulation No. 1, Section IV.G.1).
- 14.5.2 The nature and cause of the excess emissions, if known (Colorado Regulation No. 1, Section IV.G.2).
- 14.5.3 The date and time identifying each period of equipment malfunction and the nature of the system repairs or adjustments, if any, made to correct the malfunction (Colorado Regulation No. 1, Section IV.G.3).
- 14.5.4 A schedule of the calibration and maintenance of the continuous monitoring system (Colorado Regulation No. 1, Section IV.G.4).
- 14.5.5 Compliance with the reporting requirements of this section shall not relieve the owner or operator of the reporting requirements of Section II.E of the Common Provisions Regulation concerning the affirmative defense provisions for excess emissions during malfunctions (Colorado Regulation No. 1, Section IV.G.5).

15. Opacity Requirements and Periodic Monitoring

15.1 Opacity – Colorado Regulation No. 1, Section II.A.1

Except as provided for in Condition 15.2, below, no owner or operators of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1).

The permittee shall operate, calibrate and maintain a continuous in-stack monitoring device for the measurement of opacity. Unless otherwise specified in this permit, the continuous opacity monitor (COM) shall be used to monitor compliance with the 20% opacity limit set forth above. The requirements for the opacity monitoring system are defined in Condition 14 of this permit.

15.2 Opacity – Colorado Regulation No. 1, Section II.A.4

No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4). Compliance with this standard shall be monitored, during the aforementioned events, using the continuous opacity monitor (COM) as required by this permit.

The permittee shall operate, calibrate and maintain a continuous in-stack monitoring device for the measurement of opacity. Unless otherwise specified in this permit, the continuous opacity monitor (COM) shall be used to monitor compliance with the 30% opacity limit set forth above. The requirements for the opacity monitoring system are defined in Condition 14 of this permit.

A record shall be kept of the type, date and time of the commencement and completion of each and every condition subject to Colorado Regulation No. 1, Section II.A.4 that results in an exceedance. The records shall be made available for review upon request by the Division.

16. Lead Periodic Monitoring

Lead emissions from the facility are subject to the General Conditions in Section V of this Permit including Recordkeeping and Reporting requirements and Fee Payment listed under Conditions 22 and 8. Annual emissions for the purposes of APEN reporting and payment of annual fees shall be based on the information submitted in the annual Toxic Release Inventory (TRI) report. The TRI report and calculation methodology shall be made available to the Division upon request.

17. Coal Sampling Requirements

Coal shall be sampled to determine the heat content, moisture content, weight percent sulfur and weight percent ash. Vendor receipts used for contractual purposes to insure fuel is delivered within specifications shall be adequate to provide the necessary data for the purposes of emission calculations

and monitoring compliance with permit conditions. The permittee shall use vendor sample results from all shipments of coal received.

18. Voluntary Emissions Reduction Agreement – State-Only Requirements

18.1 Definitions

- 18.1.1 “Metro Units” means coal-fired electric generating units located at electrical generating stations in the Denver Metropolitan Area owned by Public Service Company of Colorado (PSCo) and specifically consisting of all of the following:
 - 18.1.1.1 Cherokee Electric Generating Station, 6198 North Franklin St., Denver, Colorado, Units 1, 2, 3 and 4.
 - 18.1.1.2 Arapahoe Electric Generating Station, 2601 South Platte River Drive, Denver, Colorado, Units, 1, 2, 3 and 4.
 - 18.1.1.3 Valmont Electric Generation Station, 1800 North 63rd Street, Boulder, Colorado, Unit 5
- 18.1.2 “Malfunction” means “malfunction” as defined in the Common Provisions Regulation, Section I.G.
- 18.1.3 “Significant Control Equipment Failure” means a substantial failure of control equipment that is caused by a force that PSCo could not have reasonably controlled and that prevents PSCo from complying with the SO₂ emission limitation contained in Condition 18.2.1. Significant Control Equipment Failures include, but are not limited to, acts of God, acts of war or terrorism, acts of the public enemy and structural or operational failure of the control equipment not caused by poor or improper maintenance by PSCo.
- 18.1.4 “Emission Credits” Means the difference in tons of SO₂ between the SO₂ emission limitation imposed on the Metro Units under Condition 18.2.1 and the Metro Units’ actual emissions of SO₂ during any calendar year. One Emission Credit represents the right to emit one ton of SO₂ in any one calendar year.
- 18.1.5 “Banked Emission Credits” means Emission Credits that PSCo may use to comply with the SO₂ emission limitation in Condition 18.2.1. Banked Emission Credits are accumulated only in years in which the Metro Units’ SO₂ emissions are less than the 10,500 tons per year SO₂ emission limitation contained in Condition 18.2.1.1. Banked Emission Credits may be used in any year after the year in which they are banked. Any Banked Emission Credits used by PSCo to meet the SO₂ emission limitations in one year shall be deducted from the Banked Emission Credits available for use in future years. To the extent they are available, PSCo shall use Banked Emission Credits to offset any SO₂ emission in excess of the limitations contained in Condition 18.2.1 that are attributable to Malfunctions or Significant Control

Equipment Failures. The Emissions Credits available for use by PSCo as Banked Emissions Credits may, at any time, include up to 2,000 Emission Credits.

18.2 Sulfur Dioxide Emission Limitations

18.2.1 Limitation: Beginning with the calendar year that begins on the Compliance Date (January 1, 2003), the Metro Units shall be required to meet either of the following SO₂ emission limitations (Voluntary Emissions Reduction Agreement, paragraph 2.a, revised to replace “upset condition” with “malfunction” and to remove references to “startup problems”):

18.2.1.1 The Metro Units, considered as a whole shall not emit in excess of 10,500 tons of SO₂ per year as determined on a calendar year annual basis. Emissions from the Metro Units shall be determined from data generated by the continuous emission monitors installed on each unit pursuant to Regulation No. 1, Paragraph VII.A. If, in any year, the Metro Units emit more than 10,500 tons of SO₂, the division shall, at PSCo’s direction, deduct some or all of PSCo’s Banked Emission Credits from the Metro Units’ reported SO₂ emissions prior to determining whether the Metro Units have complied with the SO₂ emission limitation. In no event shall PSCo be allowed to bank Emission Credits in any year in which the emissions limitations have been exceeded due to Malfunctions or Significant Control Equipment Failures, and PSCo shall be required to deduct Banked Emission Credits to the extent they are available to offset any excess emissions attributable to these defined events. Except to the extent necessary to offset excess emissions attributable to Malfunctions or Significant Control Equipment Failures, PSCo may not deduct more than 1,000 Banked Emission Credits from the Metro Units’ reported SO₂ emissions in any calendar year.

18.2.1.2 In the alternative, instead of meeting the 10,500 ton per year limitation set forth in Condition 18.2.1.1, the Metro Units considered as a whole may comply with the SO₂ emission limitations contained in the Voluntary Emissions Reduction Agreement by reducing uncontrolled SO₂ emissions by 70 percent as determined using the methods set forth in Exhibit A of the Voluntary Emissions Reduction Agreement, which has been included in Appendix H of this permit. The Metro Units’ compliance with this alternative emissions limit shall be determined on a calendar year annual basis.

18.2.2 Malfunctions: If PSCo is precluded from complying with any emissions limitations in Condition 18.2.1 because of a Malfunction, it may assert the existence of the Malfunction as an affirmative defense to an enforcement action provided that it has complied with all of the requirements related to Malfunctions found in Section V, Condition 3.d of this permit. All emissions, including those related to Malfunctions

must be reported to the Division in accordance with Condition 18.4 (Voluntary Emissions Reduction Agreement, Paragraph 2.b, revised to replace “upset condition” with “malfunction”).

18.2.3 Significant Control Equipment Failure: In the event of a Significant Control Equipment Failure at any Metro Unit, PSCo may continue to operate the Metro Unit subject to the Significant Control Failure but shall be excused from complying with, and shall not be subject to penalties for failure to comply with, the SO₂ emission limitation to the extent that its noncompliance is the result of the Significant Control Equipment Failure, provided that PSCo:

18.2.3.1 Provides the Division with written notice of the Significant Control Equipment Failure within 15 working days after the date on which it first had knowledge of the Significant Control Equipment Failure; and

18.2.3.2 Enters into an enforceable consent order with the Division, negotiated in good faith by both parties, requiring PSCo to return the control equipment at the affected Metro Unit to normal operation as soon as reasonably practicable. The consent order entered under this paragraph shall (1) establish a reasonable schedule for repairs of the control equipment; (2) require PSCo to implement measures to minimize emissions during the Significant Control Equipment Failure; and (3) establish an alternated SO₂ emissions limitation for the Metro Units not subject to the Significant Control Equipment Failure. If PSCo and the Division cannot agree to an enforceable consent order after good faith negotiations, the Division may issue a compliance order without PSCo’s consent. The issuance of such a unilateral compliance order and its terms will be subject to dispute resolution under Paragraph 10 of the Voluntary Emissions Reduction Agreement. During the negotiation of the consent order or resolution of any dispute regarding a unilateral compliance order, PSCo may continue to operate the Metro Unit subject to the Significant Control Equipment Failure even if such operation results in emissions in excess of the emission limitations contained in Condition 18.2.1 of this permit.

Notwithstanding the foregoing, the Division may, as appropriate, collect penalties for any violation of the emission limitations contained in Condition 18.2.1 of this permit to the extent such violation is caused by operation of a Metro Unit subject to a Significant Control Equipment Failure for a period of time in excess of 30 days. Nothing in the preceding sentence is intended to require the collection of such penalties or limit the Division’s discretion to impose a penalty, if any, appropriate to the circumstances of the Significant Control Equipment Failure that exceeds thirty days in duration (Voluntary Emissions Reduction Agreement, Paragraph 2.c).

18.3 Regulatory Assurance Period

Pursuant to the Act, the Metro Units are each granted the following Regulatory Assurance until the following dates:

- 18.3.1 Fifteen years after the Compliance Date (January 1, 2003) for requirements to install additional pollution control equipment or implement additional pollution control strategies to reduce SO₂ emissions (Voluntary Emissions Reduction Agreement, Paragraph 5.a); and
- 18.3.2 Ten years after the Compliance Date for requirements to install additional pollution control equipment or implement additional pollution control strategies to reduce NO_x emissions (Voluntary Emissions Reduction Agreement, Paragraph 5.b).

18.4 Reporting and Recordkeeping

- 18.4.1 Beginning one year after the Compliance Date (January 1, 2003), and continuing each year thereafter, PSCo shall submit an annual emissions report to the Division 30 days after the end of the first quarter following the anniversary of the Compliance Date (January 1, 2003). The annual report shall describe (1) the total tons of SO₂ emitted from the Metro Units during the prior year; (2) PSCo's use, if any, of Banked Emission Credits to comply with the SO₂ emission limitations and (3) if PSCo uses the alternative emissions limitation set forth in Condition 18.2.1.2, the percent reduction of SO₂ calculated in accordance with the procedures in Appendix H of this permit. The annual report shall be in a form mutually agreeable to PSCo and the Division (Voluntary Emissions Reduction Agreement, Paragraph 7.a).
- 18.4.2 PSCo shall maintain records of all data and other information used to prepare its annual report for a period of five years after the date of the report (Voluntary Emissions Reduction Agreement, Paragraph 7.b).

19. Particulate Matter Emissions - Sources Supporting the SO₂ Control System

P003 - Two (2) Recycle Ash Silos

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	19.1	N/A	0.055 tons/yr	0.61 lbs/ton	Recordkeeping and Calculation	Monthly
PM ₁₀			0.055 tons/yr	0.61 lbs/ton		
Recycle Ash Processed	19.2	N/A	180,000 tons/yr	N/A	Recordkeeping	Monthly
Opacity	19.4.	Less Than or Equal to 20%		N/A	See Condition 19.4.	

P004 - Two (2) Recycle Mixers

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	19.1	N/A	0.25 tons/yr	0.058 lbs/hr	Recordkeeping and Calculation	Monthly
PM ₁₀		N/A	0.25 tons/yr	0.058 lbs/hr		
Hours of Operation	19.3	N/A	N/A	N/A	Recordkeeping	Monthly
Opacity	19.4	Less Than or Equal to 20%		N/A	See Condition 19.4.	

P005 - Two (2) Lime Storage Silos

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	19.1	N/A	0.0046 tons/yr	0.61 lbs/ton	Recordkeeping and Calculation	Monthly
PM ₁₀			0.0046 tons/yr	0.61 lbs/ton		
Lime Processed	19.2	N/A	15,000 tons/yr	N/A	Recordkeeping	Monthly
Opacity	19.4	Less Than or Equal to 20%		N/A	See Condition 19.4.	

P006 - Two (2) Ball Mill Slakers

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	19.1	N/A	0.25 tons/yr	0.058 lbs/hr	Recordkeeping and Calculation	Monthly
PM ₁₀		N/A	0.25 tons/yr	0.058 lbs/hr		
Hours of Operation	19.3	N/A	N/A	N/A	Recordkeeping	Monthly
Opacity	19.4	Less Than or Equal to 20%		N/A	See Condition 19.4	

P007 – Ash Blower

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
PM	19.1	N/A	1.05 tons/yr	0.24 lbs/hr	Recordkeeping and Calculation	Monthly
PM ₁₀		N/A	1.05 tons/yr	0.24 lbs/hr		
Hours of Operation	19.3	N/A	N/A	N/A	Recordkeeping	Monthly
Opacity	19.4	Less Than or Equal to 20%		N/A	See Condition 19.4	

- 19.1 Particulate Matter (PM and PM₁₀) emissions shall not exceed the above limitations (Colorado Construction Permits 00BO0814 (lime storage silos), as modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on June 5, 2003, 00BO0815 (recycle ash silos), 00BO0816 (ball mill slakers), 00BO0817 (recycle mixers) and 00BO0818 (ash blower system)). Monthly emissions shall be calculated using the quantity of material processed monthly (for the lime and recycle ash silos) or hours of operation (for the ball mill slakers, recycle mixers and ash blower), and the above emission factors (EPA's Compilation of Emission Factors (AP-42), dated January 1995, Section 11.17 - for the recycle ash and lime silos and based on manufacturers' guarantees for recycle mixers, ball mill slakers and ash blower converted to lbs/hr emission factors) in the following equations:

Lime Storage Silos and Ash Recycle Silos

$$\text{tons/month} = \frac{\text{EF (lbs/ton)} \times \text{monthly processing rate (tons/month)}}{2000 \text{ lbs/ton}}$$

Note that a control efficiency of 99.9 % may be applied to the emission calculations for the silos, provided the silo baghouses are operated and maintained in accordance with manufacturers' recommendations and good engineering practices.

Ball Mill Slakers, Recycle Mixers and Ash Blower System

$$\text{Tons/mo} = \frac{\text{EF (lbs/hr)} \times \text{hours of operation}}{2000 \text{ lbs/ton}}$$

The emission factors for the recycle mixers and ball mill slakers are controlled emission factors. The scrubbers on the recycle mixers and ball mill slakers shall be operated and maintained in accordance with the manufacturers' recommendations and good engineering practices in order to use these emission factors.

Monthly emissions shall be used in a twelve month rolling total to monitor compliance with the annual emission limitations. Each month a new twelve month rolling total shall be calculated using the previous twelve months data.

- 19.2 The quantity of materials processed through the recycle ash silos and the lime storage silos shall not exceed the above limitations (Colorado Construction Permits 00BO0814 (lime silos), as

modified under the provisions of Section I, Condition 1.3, based on the APEN submitted on June 5, 2003 and 00BO0815 (recycle ash silos)). The quantity of material processed through the recycle ash silos and lime storage silos will be monitored and recorded monthly. Monthly quantities of material processed shall be used to calculate emissions as required by Condition 19.1. The monthly quantity of material processed shall be maintained in a rolling twelve month total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 19.3 Hours of operation of the ball mill slakers, recycle mixers and ash blower system will be monitored and recorded monthly. Monthly hours of operation shall be used to calculate emissions as required by Condition 19.1.
- 19.4 Opacity of emissions **from each** silo, mixer, slaker and blower system exhaust point shall not exceed 20% (Colorado Construction Permits 00BO0814 (lime silos), 00BO0815 (recycle ash silos), 00BO0816 (ball mill slakers), 00BO0817 (recycle mixers) and 00BO0818 (ash blower system)). Compliance with the opacity requirement shall be monitored as follows:
- 19.4.1 In the absence of credible evidence to the contrary, each silo shall be presumed to be in compliance with the 20% opacity limit provided each silo baghouse is operated and maintained in accordance with manufacturers' recommendations and good engineering practices.
- 19.4.2 In the absence of credible evidence to the contrary, each recycle mixer and ball mill slaker and their associated scrubbers shall be presumed to be in compliance with the 20% opacity limit provided the scrubbers are operated and maintained in accordance with the manufacturers' recommendations and good engineering practices.
- 19.4.3 In the absence of credible evidence to the contrary, the ash blower system shall be presumed to be in compliance with the 20% opacity limit provided the ash blower system is operated and maintained in accordance with the manufacturers' recommendations and good engineering practices.

20. Compliance Assurance Monitoring (CAM) Requirements

The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, apply to the Unit 5 boiler (B001) as indicated in Condition 1.13, as follows:

20.1 The permittee shall follow the CAM Plan provided in Appendix I of this permit. Excursions, for purposes of reporting are as follows:

20.1.1 An opacity value greater than 15% occurring for 60 seconds or more; or

20.1.2 Any 24-hour period in which the average opacity exceeds the baseline level established by the performance test required by Condition 1.4.2; or

The baseline opacity set by the July 2010 performance test required by Condition 1.4.2 is 7.5 %. This value serves as the baseline opacity until the next required performance test as specified in Condition 1.4.2.

20.1.3 Failure to perform the semi-annual internal baghouse inspection within 60 days of the scheduled completion date.

Excursions shall be reported as required by Section V, Conditions 21 and 22.d of this permit.

20.2 Operation of Approved Monitoring

20.2.1 At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment (40 CFR Part 64 § 64.7(b), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.2.2 Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions (40 CFR Part 64 § 64.7(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.2.3 Response to excursions or exceedances

20.2.3.1 Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable (40 CFR Part 64 § 64.7(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.2.3.2 Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process (40 CFR Part 64 § 64.7(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.2.4 After approval of the monitoring required under the CAM requirements, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Division and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters (40 CFR Part 64 § 64.7(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.3 Quality Improvement Plan (QIP) Requirements

20.3.1 Based on the results of a determination made under the provisions of Condition 20.2.3.2, the Division may require the owner or operator to develop and implement a

QIP (40 CFR Part 64 § 64.8(a), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 20.3.2 The owner or operator shall maintain a written QIP, if required, and have it available for inspection (40 CFR Part 64 § 64.8(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 20.3.3 The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
 - 20.3.3.1 Improved preventative maintenance practices (40 CFR Part 64 § 64.8(b)(2)(i), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - 20.3.3.2 Process operation changes (40 CFR Part 64 § 64.8(b)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - 20.3.3.3 Appropriate improvements to control methods (40 CFR Part 64 § 64.8(b)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - 20.3.3.4 Other steps appropriate to correct control performance (40 CFR Part 64 § 64.8(b)(2)(iv), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
 - 20.3.3.5 More frequent or improved monitoring (only in conjunction with one or more steps under Conditions 20.3.3.1 through 4 above) (40 CFR Part 64 § 64.8(b)(2)(v), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 20.3.4 If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined (40 CFR Part 64 § 64.8(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 20.3.5 Following implementation of a QIP, upon any subsequent determination pursuant to Condition 20.2.3.2, the Division or the U.S. EPA may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - 20.3.5.1 Failed to address the cause of the control device performance problems (40 CFR Part 64 § 64.8(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); or
 - 20.3.5.2 Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with

good air pollution control practices for minimizing emissions (40 CFR Part 64 § 64.8(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 20.3.6 Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act (40 CFR Part 64 § 64.8(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.4 Reporting and Recordkeeping Requirements

- 20.4.1 Reporting Requirements: The reports required by Section IV, Condition 22.d, shall contain the information specified in Appendix B of the permit and the following information, as applicable:

20.4.1.1 Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable) ((40 CFR Part 64 § 64.9(a)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); and

20.4.1.2 The owner or operator shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in Condition 20.3 of this permit. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring (40 CFR Part 64 § 64.9(a)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 20.4.2 General Recordkeeping Requirements: In addition to the recordkeeping requirements in Section IV, Condition 22.a through c.

20.4.2.1 The owner or operator shall maintain records of any written QIP required pursuant to Condition 20.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (40 CFR Part 64 § 64.9(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.4.2.2 Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for

expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements (40 CFR Part 64 § 64.9(b)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

20.5 Savings Provisions

- 20.5.1 Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the federal clean air act, including monitoring in permits issued pursuant to title I of the federal clean air act. The purpose of the CAM requirements is to require, as part of the issuance of this Title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM (40 CFR Part 64 § 64.10(a)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 20.5.2 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the federal clean air act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 20.5.3 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to take any enforcement action under the federal clean air act for any violation of an applicable requirement or of any person to take action under section 304 of the federal clean air act (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

21. Auxiliary Boiler, Rated at 12.60 MMBtu/hr, Natural Gas-Fired

Parameter	Permit Condition Number	Limitations Short Term Long Term		Compliance Emission Factor	Monitoring Method Interval	
NO _x	21.1	N/A	1.93 tons/yr	0.035 lb/MMBtu	Recordkeeping and Calculation	Monthly
CO		N/A	2.07 tons/yr	0.0375 lb/MMBtu		
Fuel Consumption	21.2	N/A	108.2 MMscf/yr	N/A	Recordkeeping	Monthly
Btu Content of Natural Gas	21.3	N/A	N/A	N/A	Fuel Sampling	Annually
PM	21.4.	0.259 lb/MMBtu		N/A	Fuel Restriction	Only Natural Gas is Used as Fuel
NSPS General Provisions	21.5.	N/A	N/A	N/A	As Required by NSPS General Provisions	Subject to NSPS General Provisions
RACT – NO _x , CO and PM ₁₀	21.6	NO _x – Use of Low NO _x Burners CO – Good Combustion Practices PM ₁₀ – Use of Natural Gas as Fuel		N/A	Certification	Annually
RACT – VOC Emissions	21.7	Good Combustion Practices		N/A	Certification	Annually
Opacity	21.8	State-Only Not to Exceed 20		N/A	Fuel Restriction	Only Natural Gas is Used as Fuel
		Not to Exceed 20%, Except as Provided for Below				
		For Certain Operational Activities – Not to Exceed 30% for a Period or Periods Aggregating More than Six (6) Minutes in Any 60 Consecutive Minutes				
MACT Requirements – 40 CFR Part 63 Subpart DDDDD	21.9	Annual Boiler Tune-Up		N/A	See Condition 21.9	
Startup Notice	21.10	Notify Division within 15 Days After Startup		N/A	See Condition 21.10	
Compliance Certification	21.11	Certify Compliance within 180 Days of Startup		N/A	Certification	Within 180 Days

21.1 Emissions of CO and NO_x shall not exceed the annual limitations listed above (As provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Section II.A.6 and Part C, Section X, based on the requested emissions indicated on the APEN received

on May 3, 2012). Monthly emissions from the boiler shall be calculated by the end of the subsequent month using the above emission factors (from manufacturer), the monthly natural gas consumption (as required by Condition 21.2) and the heat content of the natural gas (as required by Condition 21.3) in the following equation:

$$\text{Tons/mo} = \frac{\text{EF (lb/MMBtu)} \times \text{natural gas use (MMscf/mo)} \times \text{heat content of gas (MMBtu/MMscf)}}{2000 \text{ lbs/ton}}$$

Monthly emissions shall be used in a rolling twelve month total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 21.2 Fuel consumption from the boiler shall not exceed the limitation stated above (As provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Section II.A.6 and Part C, Section X, based on the requested fuel consumption indicated on the APEN received on May 3, 2012). Fuel consumed in the boiler shall be recorded monthly, as required by 40 CFR Part 60 Subpart Dc § 60.49(g)(2), as adopted by reference in Colorado Regulation No. 6, Part A. Monthly quantities of fuel consumption shall be used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.
- 21.3 The Btu Content of the natural gas burned shall be determined annually using the appropriate ASTM Methods, or equivalent, if approved in advance by the Division. Calculation of annual emissions outlined under Condition 21.1 shall be based on the most recent Btu analysis. The Btu content shall be based on the higher heating value of the fuel.
- 21.4 Particulate Matter (PM) emissions from the boiler shall not exceed the above limitations (Colorado Regulation No. 1, Section III.A.1.b). In the absence of credible evidence to the contrary, compliance with the particulate matter emission limits is presumed since only natural gas is permitted to be used as fuel in the boiler.

Note that the numeric PM standards were determined using the design heat input for the boiler (12.60 MMBtu/hr) in the following equation:

$$\text{PE} = 0.5 \times (\text{FI})^{-0.26}, \quad \text{where:} \quad \begin{array}{l} \text{PE} = \text{particulate standard in lbs/MMBtu} \\ \text{FI} = \text{fuel input in MMBtu/hr} \end{array}$$

- 21.5 This boiler is subject to the requirements in 40 CFR Part 60 Subpart A, "Standards of Performance for New Stationary Sources – General Provisions", as adopted by reference in Colorado Regulation No. 6, Part A, including but not limited to the following:
- 21.5.1 Notifications of the dates the boiler commences construction and initial startup shall be submitted as required under § 60.7(a)(1) and (3). Such notifications shall include the information specified in 40 CFR Part 60 Subpart Dc § 60.48c(a).

- 21.5.2 Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7(b).
- 21.5.3 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (§ 60.11(d)).
- 21.5.4 No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere. (§ 60.12)
- 21.6 This boiler is subject to RACT requirements for NO_x, PM₁₀ and CO emissions (Colorado Regulation No. 3, Part B, Section III.D.2.a). RACT has been determined as follows:
- 21.6.1 For NO_x – low NO_x burners.
- 21.6.2 For PM₁₀ – use of natural gas as fuel.
- 21.6.3 For CO – use of good combustion practices.
- 21.7 This boiler is subject to RACT requirements for VOC emissions (Colorado Regulation No. 3, Part B, Section III.D.2.a and Colorado Regulation No. 7, Section II.C.2). RACT has been determined to be use of good combustion practices.
- 21.8 Opacity of emissions from this boiler shall not exceed the following requirements:
- 21.8.1 **State-Only Requirement:** No owner or operator may discharge, or cause the discharge into the atmosphere of any particulate matter which is greater than 20% opacity (Colorado Regulation No. 6, Part B, Section II.C.3).
- This opacity standard applies at all times except during periods of startup, shutdown and malfunction (40 CFR Part 60 Subpart A § 60.11(c), as adopted by reference in Colorado Regulation No. 6, Part B, Section I.A).
- Note that this opacity requirement is more stringent than the opacity requirement in Condition 21.8.43 during periods of building of a new fire, cleaning of fire boxes, soot blowing, process modifications and adjustment or occasional cleaning of control equipment.

21.8.2 Except as provided for in Condition 21.8.3 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1).

21.8.3 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4).

In the absence of credible evidence to the contrary, compliance with the opacity limitations are presumed since only natural gas is permitted to be used as fuel in the boiler.

21.9 This boiler is subject to the National Emissions Standards for Hazardous Air Pollutants from Industrial, Commercial and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart DDDDD. Specifically, this boiler is subject to the following requirements:

The requirements below reflect the language in 40 CFR Part 63 Subpart DDDDD as of the date of revised permit issuance [November 20, 2012]. However, the permittee is subject to the latest version of Subpart DDDDD.

These requirements included in this Condition 21.9 are only federally enforceable. As of the date of revised permit issuance [November 20, 2012], the requirements in 40 CFR Part 63 Subpart DDDDD have not been adopted into Colorado Regulation No. 8, Part E by the Division and are therefore not state-enforceable. In the event that the Division adopts these requirements they will become state-enforceable.

Note that EPA proposed revisions to these requirements (published in the December 23, 2011 Federal Register). Although the requirements in the proposed rule that apply to this boiler do not appear to be different than the requirements in the March 21, 2011 final rule, these requirements may change in the future when the proposed rule is finalized.

When do I have to comply with this subpart? (63.7495)

21.9.1 If you have a new or reconstructed boiler or process heater, you must comply with this subpart by May 20, 2011 or upon startup of your boiler or process heater, whichever is later (63.7495(a))

21.9.2 You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart. (63.7495(d))

Note that EPA issued a “No Action Assurance” letter on February 7, 2012 and is using enforcement discretion for submitting initial notifications by the deadline specified under 63.7545(c) until the effective date of a final rule addressing the proposed reconsideration. The final rule addressing the reconsideration will set a new timeline for submittal of the initial notification.

What emission limitations, work practice standards, and operating limits must I meet? (63.7500)

21.9.3 You must meet the requirements in § 63.7500(a)(1) through (3), except as provided in § 63.7500(b) and (c). You must meet these requirements at all times. (63.7500(a)). Note that the requirements in § 63.7500(a)(2) do not apply to this unit so they have not been included in the permit.

21.9.4 You must meet each emission limit and work practice standard in Tables 1 through 3, and 12 of 40 CFR Part 63 Subpart DDDDD that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. (63.7500(a)(1)) This boiler is a new, natural gas-fired unit and it is not subject to any emission limitations in Table 1. The work practice standards in Table 3 that apply to this unit are as follows:

21.9.4.1 For each new or existing boiler or process heater with heat input capacity of 10 million Btu per hour or greater must conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. (40 CFR Part 63 Subpart DDDDD, Table 3, item 2)

21.9.5 At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (63.7500(a)(3))

21.9.6 As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section. (63.7500(b))

When must I conduct subsequent performance tests, fuel analyses, or tune-ups? (63.7515)

21.9.7 If you are required to meet an applicable tune-up work practice standard, you must conduct an annual or biennial performance tune-up according to § 63.7540(a)(10) and (a)(11), respectively. Each annual tuneup specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. (63.7515(e))

How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards? (63.7530)

- 21.9.8 You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e). (63.7530(f))

How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards? (63.7540)

- 21.9.9 If your boiler or process heater is in either the natural gas, refinery gas, other gas 1, or Metal Process Furnace subcategories and has a heat input capacity of 10 million Btu per hour or greater, you must conduct a tune-up of the boiler or process heater annually to demonstrate continuous compliance as specified below. This requirement does not apply to limited use boilers and process heaters, as defined in § 63.7575. (63.7540(a)(10))
- 21.9.9.1 As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months) (63.7540(a)(10)(i));
 - 21.9.9.2 Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available (63.7540(a)(10)(ii));
 - 21.9.9.3 Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (63.7540(a)(10)(iii));
 - 21.9.9.4 Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available (63.7540(a)(10)(iv));
 - 21.9.9.5 Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made) (63.7540(a)(10)(v)); and
 - 21.9.9.6 Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section. (63.7540(a)(10)(vi))
- 21.9.10 If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup. (63.7540(a)(12))

What notifications must I submit and when? (63.7545)

- 21.9.11 You must submit to the Division the initial notification (§ 63.9(b)) and the notification of compliance status (§ 63.9(h)) by the dates specified. (63.7545(a))
- 21.9.12 As specified in §63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after May 20, 2011, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. (63.7545(c))

Note that as discussed in Condition 21.9.2 EPA has issued a “No Action Assurance” letter on February 7, 2012 and is providing enforcement discretion with respect to submittal of the initial notification by the specified deadline.

- 21.9.13 If you are required to conduct an initial compliance demonstration as specified in § 63.7530(a), you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each affected source, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/ or other initial compliance demonstrations for the affected source according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. (63.7545(e)) The Notification of Compliance Status for this boiler shall include the information specified in paragraphs (e)(1), (6), (7) and (8).
- 21.9.14 If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in § 63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section. (63.7545(f))

What reports must I submit and when? (63.7550)

- 21.9.15 For units that are subject only to a requirement to conduct an annual or biennial tune-up according to § 63.7540(a)(10) or (a)(11), respectively, and not subject to emission limits or operating limits, you may submit only an annual or biennial compliance report, as applicable, as specified in § 63.7550(b)(1) through (5), instead of a semiannual compliance report. (63.7550(b))
- 21.9.16 The compliance report must contain the information required in § 63.7550(c)(1) through (13). (63.7550(c)) The compliance report for the affected sources at this facility shall include the information specified in paragraphs (c)(1) - (4) and (12).
- 21.9.17 Each affected source that has obtained a Title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in 40 CFR Part 63

Subpart DDDDD in the semiannual monitoring report required by § 70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 of 40 CFR Part 63 Subpart DDDDD along with, or as part of, the semiannual monitoring report required by § 70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in 40 CFR Part 63 Subpart DDDDD, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the delegated authority. (63.7550(f))

What records must I keep? (63.7555)

21.9.18 You must keep the following records:

21.9.18.1 A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual [or annual or biennial as applicable] compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv). (63.7555(a)(1))

21.9.18.2 Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii). (63.7555(a)(2))

21.9.19 If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuel that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, or other gas 1 fuel, you must keep records of the total hours per calendar year that alternative fuel is burned. (63.7555(h))

In what form and how long must I keep my records? (63.7560)

21.9.20 Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). (63.7560(a))

21.9.21 As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (63.7560(b))

21.9.22 You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years. (63.7560(c))

What parts of the General Provisions apply to me? (63.7565)

- 21.9.23 Table 10 of 40 CFR Part 63 Subpart DDDDD shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. (63.7565) These requirements include but are not limited to the following:
- 21.9.23.1 Prohibited activities in § 63.4.
- 21.9.23.2 Notification requirements in § 63.9.
- 21.10 Unless prior and mutually acceptable arrangements have been made, the applicant shall give notice to the Division within fifteen calendar days after the date on which commencement of operation takes place. (Colorado Regulation No. 3, Part B, Section III.G.1)
- 21.11 Within one hundred eighty (180) calendar days after commencement of operation, the permittee shall certify compliance with the conditions in this Section II.21 of this permit (Colorado Regulation No. 3, Part B, Section III.G.2). Submittal of the first required semi-annual monitoring report (Appendix B), after startup of this unit shall serve as the self-certification that the newly installed boiler can comply with the conditions in this Section II.21 of this permit.

SECTION III - Acid Rain Requirements

1. Designated Representative and Alternate Designated Representative

Designated Representative:

Name: George Hess
Title: General Manager,
Power Generation, CO
Phone: (303) 571-7282

Alternate Designated Representative:

Name: Gary Magno
Title: Manager Environmental Services -
Air Quality Compliance
Phone: (303) 294-2165

2. Sulfur Dioxide Emission Allowances and Nitrogen Oxide Emission Limitations

Unit 5	2009	2010	2011	2012	2013	2014
SO ₂ Allowances, per 40 CFR Part 73.10(b), Table 2	3112*	3112*	3112*	3112*	3112*	3112*
NO _x Limits, per 40 CFR Part 76.7	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu	0.40 lbs/MMBtu

* Under the provisions of § 72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the 1996 edition of the CFR.

3. Standard Requirements

Unit 5 of this facility is subject to and the source has certified that they will comply with the following standard conditions.

Permit Requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the Division determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the Division; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Federal Clean Air Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Federal Clean Air Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan to the Administrator of the U. S. EPA, as required under 40 CFR part 77.

- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
 - (i) Pay without demand, to the Administrator of the U. S. EPA, the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or the Division:
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75; provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Federal Clean Air Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Federal Clean Air Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Federal Clean Air Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Federal Clean Air Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Federal Clean Air Act, including the provisions of title I of the Federal Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Federal Clean Air Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

4. Reporting Requirements

Reports shall be submitted to the addresses identified in Appendix D.

Pursuant to 40 CFR Part 75.64 quarterly reports and compliance certification requirements shall be submitted to the Administrator **within 30 days after the end of the calendar quarter**. The contents of these reports shall meet the requirements of 40 CFR 75.64.

Pursuant to 40 CFR Part 75.65 excess emissions of opacity shall be reported to the Division. These reports shall be submitted in a format approved by the Division.

Revisions to this permit shall be made in accordance with 40 CFR Part 72, Subpart H, §§ 72.80 through 72.85 (as adopted by reference in Colorado Regulation 18). Permit modification requests shall be submitted to the Division at the address identified in Appendix D.

Changes to the Designated Representative or Alternate Designated Representative shall be made in accordance with 40 CFR 72.23.

5. Comments, Notes and Justifications

Both 40 CFR Part 73.10(b), Table 2 and the EPA's "Acid Rain Permit Writer's Guide", issued February 8, 1996, identify units 14, 21 and 24 as affected units. In response to a request from the Division, the source has submitted retired unit exemption forms for these units. The retired unit exemption forms can be found in Appendix G.

SECTION IV - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D., & XIII.B and § 25-7-114.4(3)(a), C.R.S.

1. Specific Non-Applicable Requirements

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modification or reconstruction on which construction commenced prior to permit issuance.

Emission Unit Description & Number	Non-Applicable Requirement	Justification
B001 (Unit 5)	Colorado Regulation 6, Part B, Section II	These requirements are not applicable as the boilers commenced construction prior to January 30, 1979.
B001 (Unit 5)	40 CFR Part 60 Subparts D, Da, Db and Dc (as adopted by reference in Colorado Regulation 6)	These requirements are not applicable as the boilers commenced construction prior to August 17, 1971.
Cold Cleaner Solvent Vats	40 CFR Part 63, Subpart T, National Emission Standards for Halogenated Solvent Cleaning (as adopted by reference in Colorado Regulation No. 8, Part E, Section III)	These requirements are not applicable as the solvents used in the cold cleaners do not contain methylene chloride, perchloroethylene, trichloroethylene, 1,1,1- trichloroethane, carbon tetrachloride, or chloroform or any combination in a total concentration greater than 5% by weight.

2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

- 2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;
- 2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;
- 2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;

- 2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.
- 2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

3. Streamlined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

Permit Condition(s)	Streamlined (Subsumed) Requirements
Section II, Conditions 14.1, 14.2, 14.3 and 14.4	Colorado Regulation No. 1, Sections IV.A and B [general continuous emission monitoring requirements and maintaining a file of continuous emission monitoring records]
Section V, Conditions 22.b and c	Colorado Regulation No. 1, Section IV.H [maintaining a file and record retention requirements for continuous emission monitors]
Section II, Condition 1.6	Colorado Regulation No. 1, Section VI.A.3.a.(ii) [SO ₂ emissions shall not exceed 1.2 lbs/MMBtu]
Section II, conditions 14.1, 14.2, 14.3 and 14.4	Colorado Regulation No. 1, Section VII.A.3 [ONLY the continuous emission monitoring requirements]
Section II, Condition 5.7 and Section V, Conditions 22.b and c	Colorado Regulation No. 1, Section VIII.C [ONLY the requirement to retain records for 2 years]
Section II, Condition 21.4	Colorado Regulation No. 6, Part B, Section II.C.2 [particulate matter standard] – State-only Requirement
Section V, Conditions 22.b and c.	40 CFR Part 60 Subpart Dc § 60.48c(i), as adopted by reference in Colorado Regulation 6, Part A [retain records for two (2) years]

SECTION V - General Permit Conditions

5/22/12 version

1. Administrative Changes

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

2. Certification Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

- a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
- c. Compliance certifications shall contain:
 - (i) the identification of each permit term and condition that is the basis of the certification;
 - (ii) the compliance status of the source;
 - (iii) whether compliance was continuous or intermittent;
 - (iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.
- d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.
- e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

3. Common Provisions

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II.E., II.F., II.I, and II.J

- a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

- (i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;
- (ii) approves the use of an equivalent method;
- (iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or
- (iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (i) Sampling ports adequate for test methods applicable to such facility;
- (ii) Safe sampling platform(s);
- (iii) Safe access to sampling platform(s); and
- (iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other

circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

- (i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;
- (ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;
- (iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;
- (iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
- (v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;
- (viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and
- (x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but

not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

- (i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;
- (ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;
- (iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;
- (v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,
- (viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall

submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

4. Compliance Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

- a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.
- b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.
- d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.
- e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.
- f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:

- (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and
 - (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

5. Emergency Provisions

Regulation No. 3, 5 CCR 1001-5, Part C, § VII.

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. the permitted facility was at the time being properly operated;
- c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or malfunction provision contained in any applicable requirement.

6. Emission Controls for Asbestos

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "asbestos control."

7. Emissions Trading, Marketable Permits, Economic Incentives

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

8. Fee Payment

C.R.S. §§ 25-7-114.1(6) and 25-7-114.7

- a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.
- b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.
- c. The permittee shall pay an APEN fee in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or revised APEN filed.

9. Fugitive Particulate Emissions

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

10. Inspection and Entry

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

- a. enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is conducted, or where records must be kept under the terms of the permit;
- b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Operating Permit;
- d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

11. Minor Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

12. New Source Review

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

13. No Property Rights Conveyed

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

14. Odor

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

15. Off-Permit Changes to the Source

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit . The permit shield shall not apply to any off-permit change.

16. Opacity

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.-II.

17. Open Burning

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

18. Ozone Depleting Compounds

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

19. Permit Expiration and Renewal

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

- a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.
- b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

20. Portable Sources

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

21. Prompt Deviation Reporting

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

“Prompt” is defined as follows:

- a. Any definition of “prompt” or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit; or
- b. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:
 - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;
 - (ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and
 - (iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.
- c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. *[Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.]* A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

“Prompt reporting” does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

22. Record Keeping and Reporting Requirements

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

- a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:
 - (i) date, place as defined in the Operating Permit, and time of sampling or measurements;
 - (ii) date(s) on which analyses were performed;

- (iii) the company or entity that performed the analysis;
 - (iv) the analytical techniques or methods used;
 - (v) the results of such analysis; and
 - (vi) the operating conditions at the time of sampling or measurement.
- b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.
- c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.
- d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.
- e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

23. Reopenings for Cause

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

- a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.
- b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.

- c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.
- d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

24. Section 502(b)(10) Changes

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

25. Severability Clause

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

26. Significant Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

27. Special Provisions Concerning the Acid Rain Program

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

- a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.
- b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

28. Transfer or Assignment of Ownership

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

29. Volatile Organic Compounds

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

The requirements in paragraphs a, b and e apply to sources located in an ozone non-attainment area or the Denver 1-hour ozone attainment/maintenance area. The requirements in paragraphs c and d apply statewide.

- a. All storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

- b. Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.
- c. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.
- d. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.
- e. Beer production and associated beer container storage and transfer operations involving volatile organic compounds with a true vapor pressure of less than 1.5 PSIA actual conditions are exempt from the provisions of paragraph b, above.

30. Wood Stoves and Wood burning Appliances

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

END OF PERMIT REQUIREMENTS

OPERATING PERMIT APPENDICES

- A - INSPECTION INFORMATION
- B - MONITORING AND PERMIT DEVIATION REPORT
- C - COMPLIANCE CERTIFICATION REPORT
- D - NOTIFICATION ADDRESSES
- E - PERMIT ACRONYMS
- F - PERMIT MODIFICATIONS
- G - RETIRED UNIT EXEMPTION FORMS
- H - VOLUNTARY EMISSIONS REDUCTION AGREEMENT –
METHOD FOR DETERMINING PERCENT REDUCTION
- I - COMPLIANCE ASSURANCE MONITORING PLAN

***DISCLAIMER:**

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

APPENDIX A - Inspection Information

Directions to Plant:

The facility is located at 1800 63rd Street in Boulder, CO.

Safety Equipment Required:

Eye Protection
Hard Hat
Safety Shoes
Hearing Protection

Facility Plot Plan:

Figure 1 (following page) shows the plot plan as submitted on February 15, 1996 with the source's Title V Operating Permit Application.

List of Insignificant Activities:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Units/activities with emissions less than APEN de minimis (Reg 3 Part C.II.E.3.a)

Venting of natural gas and leaks
Boiler steam vents
Coal conveyor deicing
Bottom ash handling
Gasoline tank for plant vehicles (500 gal aboveground)
Diesel fuel-fired portable heaters
Fluorescent lamp crusher

Air conditioning or ventilation systems (Reg 3 Part C.II.E.3.c)

In-house experimental and/or analytical laboratories (Reg 3 Part C.II.E.3.i)

Plant laboratory

Chemical storage tanks less than 500 gal (Reg 3 Part C.II.E.3.n)

Unpaved public and private roadways, except haul roads (Reg 3 Part C.II.E.3.o)

Brazing, soldering and welding operations - non-lead based (Reg 3 Part C.II.E.3.r)

Welding machine

Battery recharging areas (Reg 3 Part C.II.E.3.t)

Aerosol can usage (Reg 3 Part C.II.E.3.u)

Spray paint, cleaners and solvent usage

Landscaping/site housekeeping devices less than 10 HP (Reg 3 Part C.II.E.3.bb)

Mowers, snowblowers, etc...

Fugitive emissions from landscaping (Reg 3 Part C.II.E.3.cc)

Emergency events (Reg 3 Part C.II.E.3.ff)

Operations involving acetylene and other flame cutting torches (Reg 3 Part C.II.E.3.kk)

Acetylene welding

Chemical storage areas less than 5,000 gal capacity (Reg 3 Part C.II.E.3.mm)

Oil drum storage area

Architectural painting for maintenance purposes (Reg 3 Part C.II.E.3.nn)

Emissions of air pollutants not criteria or non-criteria reportable (Reg 3 Part C.II.E.3.oo)

Turbine hydrogen vents

Wastewater operations

Janitorial activities and products (Reg 3 Part C.II.E.3.pp)

Groundskeeping activities and products (Reg 3 Part C.II.E.3.qq)

Office emissions (Reg 3 Part C.II.E.3.tt)

Restrooms, copiers, etc...

Storage of butane, propane or LPG in tanks < 60,000 gal (Reg 3 Part C.II.E.3.zz)

Storage of compressed natural gas, butane or propane gas

Storage of lube oil in tanks < 40,000 gal (Reg 3 Part C.II.E.3.aaa)

Miscellaneous lube oil storage tanks

Storage tanks with annual throughput < 400,000 gal containing specific contents (Reg 3 Part C.II.E.3.fff)

Emergency generator diesel fuel tank (1,000 gal above ground)

Diesel fuel tank for refueling of heavy equipment (2,000 gal underground)

Turbine lube oil batch tank

Diesel fuel tank for fire pump (500 gal above ground)

Forklifts (Reg 3 Part C.II.E.3.kkk)

Emergency Power Generators operated < 250 hrs/yr (Reg 3, Part C.II.E.3.nnn.(ii))

Emergency generator, 536 hp

***Note that an APEN must be filed for this engine if actual, uncontrolled emissions exceed the APEN de minimis level.**

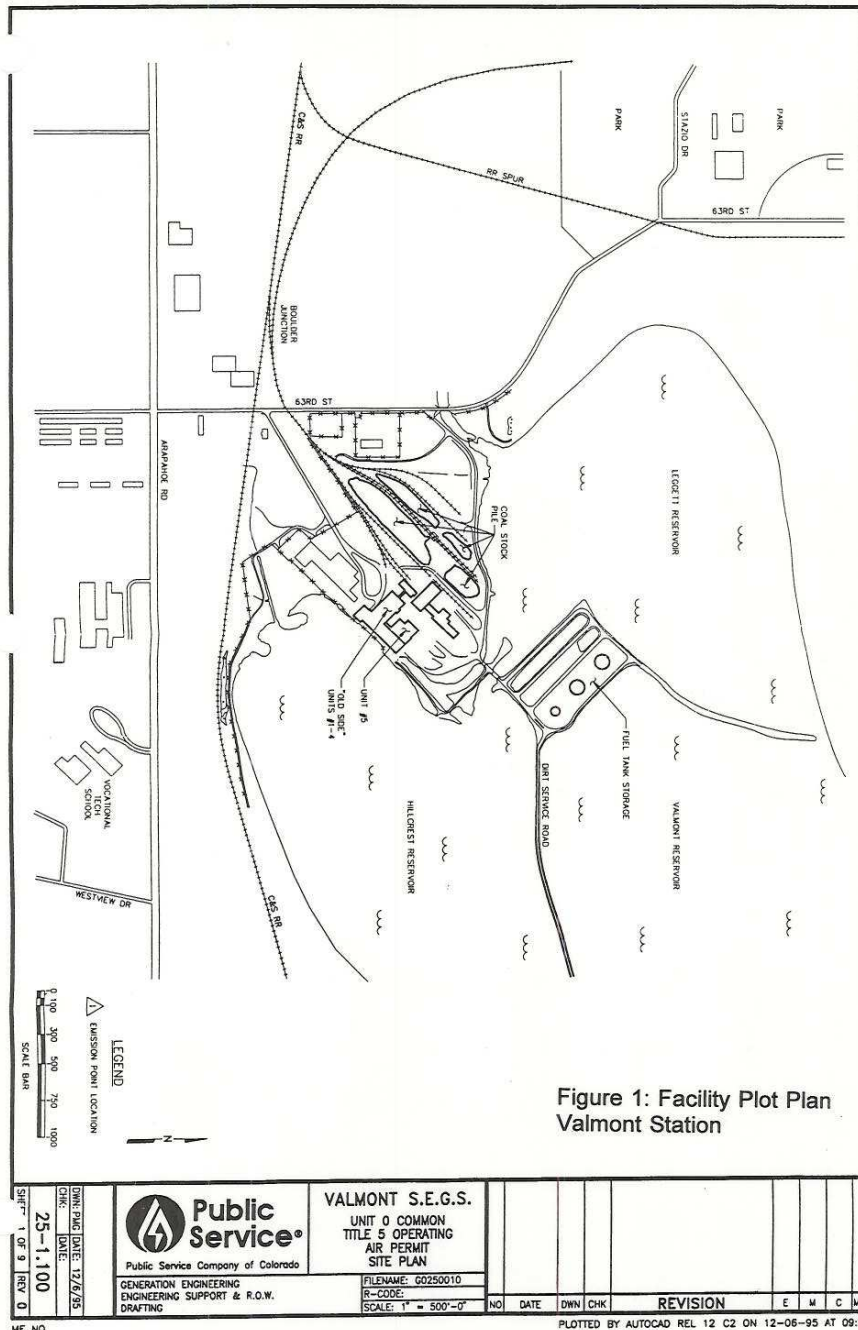
Pesticides, fumigants and herbicides (Reg 3 Part C.II.E.3.ttt)

Ventilation of mobile sources operating within garage, tunnel, or building (Reg 3 Part C.II.E.3.uuu)

Sandblast equipment when blast media is recycled and blasted material collected (Reg 3 Part C.II.E.3.www)

Not sources of emissions

Two (2) 20,000 gallon condensate (water) tanks



APPENDIX B

Reporting Requirements and Definitions

no codes ver 2/20/07

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

- (A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);
- (B) fails to notify or report as required under the Act; or
- (C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits. All required reports must be certified by a responsible official.

Report #1: Monitoring Deviation Report (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

Report #2: Permit Deviation Report (must be reported “promptly”)

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit

requirements, including those attributable to upset conditions and malfunctions as defined in this Appendix, the probable cause of such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, “malfunction” shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

- (1) A situation where emissions exceed an emission limitation or standard contained in the permit;
- (2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;
- (3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,
- (4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report.

Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;

- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.¹
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

Startup, Shutdown, Malfunctions and Emergencies

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

Emergency Provisions

¹ For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event.

Under the Emergency provisions of Part 70, certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

DEFINITIONS

Malfunction (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Malfunction (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Monitoring and Permit Deviation Report - Part I

- Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.
- Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Public Service Company of Colorado – Valmont Station

OPERATING PERMIT NO: 96OPBO131

REPORTING PERIOD: _____ (see first page of the permit for specific reporting period and dates)

Operating Permit Unit ID	Unit Description	Deviations noted During Period? ¹		Malfunction/ Emergency Condition Reported During Period?	
		YES	NO	YES	NO
B001	Unit 5, Combustion Engineering Boiler, Model and Serial No. 19695, Rated at 1,845 MMBtu/hr. Coal-Fired with Natural Gas as Back-up.				
T001	General Electric combustion Turbine, Model MS7000, Rated at 570 MMBtu/hr. Serial No. 217803. Natural Gas Fired with No. 2 Fuel Oil Used as Back-up.				
F001	Fugitive Particulate Emissions from Coal Handling and Transportation				
F002	Fugitive Particulate Emissions from Ash Handling and Transportation				
F003	Fugitive Particulate Emissions from Vehicle Travel on Paved and Unpaved Roads				
P001	Ash Silo				
P002	Coal Handling System (Crusher and Conveyors)				
M001	System One Cold Cleaner Solvent Vat				
P003	Two (2) Recycle Ash Silos				
P004	Two (2) Recycle Mixers				
P005	Two (2) Lime Silos				
P006	Two (2) Ball Mill Slakers				
P007	Ash Blower System				
B003	Natural Gas-Fired Boiler, Model and Serial Nos. Unknown, Rated at 12.60 MMBtu/hr. The boiler is equipped with Webster Engineering Low NO _x Burners (Model No. HDSX7G-250A).				

Operating Permit Unit ID	Unit Description	Deviations noted During Period? ¹		Malfunction/ Emergency Condition Reported During Period?	
		YES	NO	YES	NO
E001	John Deere Emergency Fire Pump System - Equipped with a Detroit Diesel, Model No. JWGH-UF60, Serial No. RG6081H167869, Diesel Fuel-Fired Engine, Rated at 360 hp and 16.5 gal/hr.				
	General Conditions				
	Insignificant Activities				

¹ See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

Monitoring and Permit Deviation Report - Part II

FACILITY NAME: Public Service Company of Colorado – Valmont Station
OPERATING PERMIT NO: 96OPBO131
REPORTING PERIOD:

Is the deviation being claimed as an: Emergency _____ Malfunction _____ N/A _____

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Operating Permit Condition Number Citation

Explanation of Period of Deviation

Duration (start/stop date & time)

Action Taken to Correct the Problem

Measures Taken to Prevent a Reoccurrence of the Problem

Dates of Malfunctions/Emergencies Reported (if applicable)

Deviation Code (for Division Use Only)

SEE EXAMPLE ON THE NEXT PAGE

EXAMPLE

FACILITY NAME: Acme Corp.
OPERATING PERMIT NO: 96OPZZXXX
REPORTING PERIOD: 1/1/06 - 6/30/06

Is the deviation being claimed as an: Emergency _____ Malfunction XX N/A _____

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Asphalt Plant with a Scrubber for Particulate Control - Unit XXX

Operating Permit Condition Number Citation

Section II, Condition 3.1 - Opacity Limitation

Explanation of Period of Deviation

Slurry Line Feed Plugged

Duration

START- 1730 4/10/06
END- 1800 4/10/06

Action Taken to Correct the Problem

Line Blown Out

Measures Taken to Prevent Reoccurrence of the Problem

Replaced Line Filter

Dates of Malfunction/Emergencies Reported (if applicable)

5/30/06 to A. Einstein, APCD

Deviation Code (for Division Use Only)

Monitoring and Permit Deviation Report - Part III

REPORT CERTIFICATION

SOURCE NAME: Public Service Company of Colorado – Valmont Station

FACILITY IDENTIFICATION NUMBER: 0130001

PERMIT NUMBER: 96OPBO131

REPORTING PERIOD: _____ (see first page of the permit for specific reporting period and dates)

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

STATEMENT OF COMPLETENESS

I have reviewed the information being submitted in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this submittal are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in Sub-Section 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of Sub-Section 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature

Date Signed

Note: Deviation reports shall be submitted to the Division at the address given in Appendix D of this permit. No copies need be sent to the U.S. EPA.

Operating Permit Number: 96OPBO131

First Issued: 9/1/01
Renewed: 3/1/10
Last Revised: 11/20/12

APPENDIX C

Required Format for Annual Compliance Certification Report

no codes ver 2/20/07

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: Public Service Company of Colorado – Valmont Station

OPERATING PERMIT NO: 96OPBO131

REPORTING PERIOD:

I. Facility Status

___ During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the Permit.

___ With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

Operating Permit Unit ID	Unit Description	Deviations Reported ¹		Monitoring Method per Permit ²		Was Compliance Continuous or Intermittent ³	
		Previous	Current	YES	NO	Continuous	Intermittent
B001	Unit 5, Combustion Engineering Boiler, Model and Serial No. 19695, Rated at 1,845 MMBtu/hr. Coal-Fired with Natural Gas as Back-up.						
T001	General Electric combustion Turbine, Model MS7000, Rated at 570 MMBtu/hr. Serial No. 217803. Natural Gas Fired with No. 2 Fuel Oil Used as Back-up.						
F001	Fugitive Particulate Emissions from Coal Handling and Transportation						
F002	Fugitive Particulate Emissions from Ash Handling and Transportation						

Air Pollution Control Division
Colorado Operating Permit
Compliance Certification Report

Appendix C
Page 2

Operating Permit Unit ID	Unit Description	Deviations Reported ¹		Monitoring Method per Permit? ²		Was Compliance Continuous or Intermittent ³	
		Previous	Current	YES	NO	Continuous	Intermittent
F003	Fugitive Particulate Emissions from Vehicle Travel on Paved and Unpaved Roads						
P001	Ash Silo						
P002	Coal Handling System (Crusher and Conveyors)						
M001	System One Cold Cleaner Solvent Vat						
P003	Two (2) Recycle Ash Silos						
P004	Two (2) Recycle Mixers						
P005	Two (2) Lime Silos						
P006	Two (2) Ball Mill Slakers						
P007	Ash Blower System						
B003	Natural Gas-Fired Boiler, Model and Serial Nos. Unknown, Rated at 12.60 MMBtu/hr. The boiler is equipped with Webster Engineering Low NO _x Burners (Model No. HDSX7G-250A).						
E001	John Deere Emergency Fire Pump System - Equipped with a Detroit Diesel, Model No. JWGH-UF60, Serial No. RG6081H167869, Diesel Fuel-Fired Engine, Rated at 360 hp and 16.5 gal/hr.						
	General Conditions						
	Insignificant Activities ⁴						

¹ If deviations were noted in a previous deviation report, put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

² Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

³ Note whether the compliance status with of each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then

Operating Permit Number:96OPBO131

First Issued: 9/1/01
Renewed: 3/1/10
Last Revised: 11/20/12

the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

⁴ Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II. Status for Accidental Release Prevention Program:

- A. This facility _____ is subject _____ is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act)
- B. If subject: The facility _____ is _____ is not in compliance with all the requirements of section 112(r).
1. A Risk Management Plan _____ will be _____ has been submitted to the appropriate authority and/or the designated central location by the required date.

III. Certification

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature

Date Signed

NOTE: All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

APPENDIX D

Notification Addresses

1. Air Pollution Control Division

Colorado Department of Public Health and Environment
Air Pollution Control Division
Operating Permits Unit
APCD-SS-B1
4300 Cherry Creek Drive S.
Denver, CO 80246-1530

ATTN: Matt Burgett

2. United States Environmental Protection Agency

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF-T
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance
Air and Radiation Programs, 8P-AR
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

APPENDIX E

Permit Acronyms

Listed Alphabetically:

AIRS -	Aerometric Information Retrieval System
AP-42 -	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit
CAA -	Clean Air Act (CAAA = Clean Air Act Amendments)
CCR -	Colorado Code of Regulations
CEM -	Continuous Emissions Monitor
CF -	Cubic Feet (SCF = Standard Cubic Feet)
CFR -	Code of Federal Regulations
CM -	Cubic Meters (SCM = Standard Cubic Meters)
CO -	Carbon Monoxide
COM -	Continuous Opacity Monitor
CRS -	Colorado Revised Statute
EF -	Emission Factor
EPA -	Environmental Protection Agency
FI -	Fuel Input Rate in MMBtu/hr
FR -	Federal Register
G -	Grams
Gal -	Gallon
GPM -	Gallons per Minute
HAPs -	Hazardous Air Pollutants
HP -	Horsepower
HP-HR -	Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)
LAER -	Lowest Achievable Emission Rate
LBS -	Pounds
M -	Thousand
µg -	Micro Grams
MM -	Million
MMscf -	Million Standard Cubic Feet
MMscfd -	Million Standard Cubic Feet per Day
N/A or NA -	Not Applicable
NOx -	Nitrogen Oxides
NESHAP -	National Emission Standards for Hazardous Air Pollutants
NSPS -	New Source Performance Standards
P -	Process Weight Rate in Tons/Hr

PE -	Particulate Emissions
PM -	Particulate Matter
PM ₁₀ -	Particulate Matter Under 10 Microns
PSD -	Prevention of Significant Deterioration
PTE -	Potential To Emit
RACT -	Reasonably Available Control Technology
SCC -	Source Classification Code
SCF -	Standard Cubic Feet
SIC -	Standard Industrial Classification
SO ₂ -	Sulfur Dioxide
TPY -	Tons Per Year
TSP -	Total Suspended Particulate
VOC -	Volatile Organic Compounds

APPENDIX F
Permit Modifications

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
November 1, 2010	Minor Modification	Section I	Removed Section II, Condition 1.9 from the list of state-only requirements in Condition 1.4. Removed the 3 rd column in the table in Condition 6.1 and renamed the 1 st column "Emission Unit No./Facility ID".
		Section II.1	Replaced the language in Condition 1.4.2 that requires to the source to submit an application to include the baseline opacity in the permit with a note that the baseline opacity from the initial test has been set. In addition, some language changes were made to the paragraph in Condition 1.4.2 that requires the source to submit the proposed baseline opacity from any subsequent tests. Included the PM emissions factors from the latest stack test in Condition 1.5. Revised Condition 1.5 to indicate that the emission factor from the "most recent" performance test shall be used to calculate PM emissions. Condition 1.9 was revised to remove the state-only lead standard of 1.5 µg/m ³ .
		Section II.16	Removed Condition 16.1 (Reg 8 lead standard).
		Section II.20	Added the baseline opacity level in Condition 20.1.2 (CAM requirements).
		Section V	Labeled the 3 rd paragraph of General Condition 29.a as 29.b and added the provisions in Reg 7, Section III.C as paragraph e. Revised the version date.
		Appendix I	Added the 24-hour opacity indicator levels. The table in Section III.a was revised, in part to include the performance test results from the 2010 test which were used to set the 24-hr opacity indicator. Section III.c was also revised to include further justification of the 15% opacity indicator, to further clarify the justification of the 24-hr opacity indicator and to remove language indicating the 24-hr opacity indicator was presumptively acceptable. In addition, the last three sentences in Section III.C were replaced with language noting that the initial performance test was conducted and that the source was monitoring the 24-hour average opacities within 180 days of renewal permit issuance.
November 4, 2010	Administrative Amendment	Appendix I	Removed the sentence indicating that startups, shutdowns and malfunctions can be excluded from the 24-hr average opacity from Section II (Table, Section III.f – averaging time for indicator 1 (visible emissions)) of the CAM plan.
May 11, 2012	Minor Modification	Page Following Cover Page	Revised the responsible official and the permit contact. Included the full company name (i.e., "Public Service Company of Colorado", rather than "Public Service Company")
		Headers and Footers	Included the full company name (i.e., "Public Service Company of Colorado", rather than "Public Service Company")

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
May 11, 2012	Minor Modification	Section II.1	Revised the description in Condition 1.1 to include the emergency fire pump and to address the proposed new auxiliary boiler. Added Section II, Condition 21.8.1 to the list of state-only requirements in Condition 1.4. The following changes were made to the table in Condition 6.1: added the new auxiliary boiler, added the emergency fire pump engine, added language to the York and Shipley boiler (B002) indicating that it would be replaced with the new boiler and changed the title of the second column to "AIRS point number." and corrected some entries in this column.
		Section II.7	Replaced the 112(j) application requirement in Condition 7.6 with the Boiler MACT requirements.
		Section II.14	The phrase "may elect to" in the first paragraph of Condition 14.4.3 was replaced with "shall".
		Section II.21	Removed the Regional Haze Requirements and added requirements for the new auxiliary boiler.
		Section II.22	Added requirements for the emergency fire pump engine.
		Section III	Revised the designated representative and the alternate designated representative.
		Section IV	Included streamlined requirements related to the new auxiliary boiler to the table in Section IV.3(Reg 6, Part B, Section II – PM and NSPS Dc 2 yr record retention requirement)
		Section V	Revised the version date. Revised Condition 29 (VOC) to include a paragraph indicating that paragraphs a, b and e apply to sources located in an ozone non-attainment area or the Denver 1-hour ozone attainment/maintenance area and the requirements in paragraphs c and d apply statewide. In addition, the first phrase in paragraph a was removed.
		Appendix A – Insignificant Activity List	Removed the emergency fire pump. Revised the insignificant category for the emergency generator, added the size and noted that an APEN would have to be filed if emissions exceeded the APEN de minimis level. In addition, a fluorescent lamp crusher was added to the list (emissions less than the APEN de minimis level).
		Appendices B and C	The emergency fire pump and the new auxiliary boiler were included in the tables. Included the full company name (i.e., "Public Service Company of Colorado", rather than "Public Service Company") to the reports included in Appendices B and C.
November 20, 2012	Minor Modification	Appendix D	Changed the Division contact for reports.
		Section I	Condition 1.1 was revised to address the removal of the old auxiliary boiler. Condition 1.4 was revised to add Section II, Condition 1.14 as a state-only requirement and to remove Section V, Condition 3.d as a state-only requirement. The old auxiliary boiler (B002) was removed from the table in Condition 6.1 and the start-up date for the new auxiliary boiler (B003) was revised.

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
November 20, 2012	Minor Modification	Section II.1	Added the requirements in Regulation No. 6, Part B, Section VIII for low emitters to Condition 1.14 (these are state-only requirements). Added the Regional Haze Requirements (Regulation No. 3, Part F) in Condition 1.15.
		Section II.2	Added the Regional Haze Requirements (Regulation No. 3, Part F) in Condition 2.11.
		Section II.7	The old auxiliary boiler has been removed from service and a request to cancel the APEN was submitted. Therefore, the requirements for the old auxiliary boiler were removed from this Section II.7. The provisions for the emergency fired pump (previously in Section II.22) were included in this Section II.7.
		Section II.18	Removed the note indicating that these requirements are state-only enforceable until EPA approves the BART portion of Colorado's Regional Haze SIP.
		Section II.21	Added a note to Condition 21.9 to indicate that the source is subject to the most recent version of the requirements in 40 CFR Part 63 Subpart DDDDD. Added notes under Conditions 21.9.2 and 21.9.12 regarding EPA's "No Action Assurance" letter with respect to submittal on initial notifications by the deadline. The requirements in § 63.7545(c) (deadline for initial notification) were included in Condition 21.9. Conditions 21.10 (commence construction) and 21.12 (submit APEN cancellation for B002) were removed since the requirements have been completed.
		Section II.22	Added notes to Condition 22.3 to indicate that the source is subject to the most recent version of the requirements in 40 CFR Part 63 Subpart ZZZZ and that revisions to Subpart ZZZZ have been proposed. Minor format changes were made to Condition 22.3 and a permit condition reference in Condition 22.3.10.3 was corrected. The requirements in §§ 63.6660 and 63.6665 were included in Condition 22.3. The MACT general provisions were removed from Condition 22.4 and are included in Condition 22.3.14. This Section was moved to Section II.7.
		Section III	Revised the table in Section III.1 to indicate that the permit shield for the requirements in Reg 6, Part B, Section II and 40 CFR Part 60 Subparts D, Da, Db and Dc only apply to Unit 5 (B001).
		Section V	Revised the version date. The paragraph in Condition 3.d indicating that the requirements are state-only was removed, since EPA approved these provisions in into Colorado's SIP effective October 6, 2008.
		Appendices	The old auxiliary boiler (B002) was removed from the tables in Appendices B and C.

APPENDIX G

Retired Unit Exemption Forms



United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Expires 1-31-96

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit that is or will be retired by plant name, State, and ORIS Code and boiler ID# from NADB.

Plant Name Valmont	State Colorado	ORIS Code	Boiler ID# 14
--------------------	----------------	-----------	---------------

STEP 2
Check one box to indicate the deadline for this application.

- ☒ This petition is being submitted on or before the deadline for submitting an Acid Rain permit application for Phase II.
- ☐ The unit has a Phase II permit. This petition is being submitted on or before the deadline for reapplying for the permit.

STEP 3
Read the certification and enter the actual or expected date of retirement of the unit.

I certify that this unit is or will be permanently retired on the date specified in this petition and will not emit any sulfur dioxide or nitrogen oxides after such date. The date for the permanent retirement of this unit is or will be:

12/23/87

EP 4
Indicate that the required information is attached.

- ☐ A description of any actions that have been or will be taken and that provide the basis for the certification in Step 3.

STEP 5
Read the special provisions and the certifications, and sign and date.

Special Provisions

- (1) A unit exempted under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date it is exempted.
- (2) The owners and operators of a unit exempted under 40 CFR 72.8 shall comply with monitoring requirements in accordance with part 75 and will be allocated allowances in accordance with 40 CFR part 73.
- (3) A unit exempted under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits an Acid Rain permit application for the unit not less than 24 months prior to the later of January 1, 2000, or the date the unit is to resume operation. On the earlier of the date the written exemption expires or the date an Acid Rain permit application is submitted or is required to be submitted under this paragraph (3), the unit shall no longer be exempted and shall be subject to all requirements of 40 CFR part 72.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Ralph Sargent III	
Signature <i>Ralph Sargent III</i>	Date 1-29-97



United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Expires 1-31-96

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit that is or will be retired by plant name, State, and ORIS Code and boiler ID# from NADB.

Plant Name Valmont	State Colorado	ORIS Code	Boiler ID# 21
--------------------	----------------	-----------	---------------

STEP 2
Check one box to indicate the deadline for this application.

- ☒ This petition is being submitted on or before the deadline for submitting an Acid Rain permit application for Phase II.
- ☐ The unit has a Phase II permit. This petition is being submitted on or before the deadline for reapplying for the permit.

STEP 3
Read the certification and enter the actual or expected date of retirement of the unit.

I certify that this unit is or will be permanently retired on the date specified in this petition and will not emit any sulfur dioxide or nitrogen oxides after such date. The date for the permanent retirement of this unit is or will be:

12/23/87

STEP 4
Indicate that the required information is attached.

- ☐ A description of any actions that have been or will be taken and that provide the basis for the certification in Step 3.

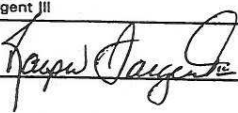
STEP 5
Read the special provisions and the certifications, and sign and date.

Special Provisions

- (1) A unit exempted under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date it is exempted.
- (2) The owners and operators of a unit exempted under 40 CFR 72.8 shall comply with monitoring requirements in accordance with part 75 and will be allocated allowances in accordance with 40 CFR part 73.
- (3) A unit exempted under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits an Acid Rain permit application for the unit not less than 24 months prior to the later of January 1, 2000, or the date the unit is to resume operation. On the earlier of the date the written exemption expires or the date an Acid Rain permit application is submitted or is required to be submitted under this paragraph (3), the unit shall no longer be exempted and shall be subject to all requirements of 40 CFR part 72.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Ralph Sargent III		
Signature 	Date 1-29-97	



United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Expires 1-31-96

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit that is or will be retired by plant name, State, and ORIS Code and boiler ID# from NADB.

Plant Name Valmont	State Colorado	ORIS Code	Boiler ID# 24
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STEP 2
Check one box to indicate the deadline for this application.

- ☒ This petition is being submitted on or before the deadline for submitting an Acid Rain permit application for Phase II.
- ☐ The unit has a Phase II permit. This petition is being submitted on or before the deadline for reapplying for the permit.

STEP 3
Read the certification and enter the actual or expected date of retirement of the unit.

I certify that this unit is or will be permanently retired on the date specified in this petition and will not emit any sulfur dioxide or nitrogen oxides after such date. The date for the permanent retirement of this unit is or will be:

12/23/87

STEP 4
Indicate that the required information is attached.

- ☐ A description of any actions that have been or will be taken and that provide the basis for the certification in Step 3.

STEP 5
Read the special provisions and the certifications, and sign and date.

Special Provisions

- (1) A unit exempted under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date it is exempted.
- (2) The owners and operators of a unit exempted under 40 CFR 72.8 shall comply with monitoring requirements in accordance with part 75 and will be allocated allowances in accordance with 40 CFR part 73.
- (3) A unit exempted under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits an Acid Rain permit application for the unit not less than 24 months prior to the later of January 1, 2000, or the date the unit is to resume operation. On the earlier of the date the written exemption expires or the date an Acid Rain permit application is submitted or is required to be submitted under this paragraph (3), the unit shall no longer be exempted and shall be subject to all requirements of 40 CFR part 72.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Ralph Sargent III	
Signature 	Date 1-29-97

APPENDIX H

Voluntary Emissions Reduction Agreement – Method For Determining Percent Reduction

Included below is Exhibit A (first amendment) of the Voluntary Emissions Reduction Agreement. The provisions in this Exhibit A shall be used to determine the percent reduction for the Metro Units, as specified in condition 18.2.1.2

It should be noted that the monthly “Unit Coal Train Sample Analysis” for the sulfur and Btu content of the coal is based the weighted average of each coal shipment received at the facility in a month. Note that since the “Unit Coal Train Sample Analysis” is based on all coal shipments received at the facility, the “Unit Coal Train Analysis” for Btu and sulfur content are the same for each unit at a given facility. Therefore, the “Monthly SO₂ Emission Rate, lbs SO₂/MMBtu” is the same for each unit at a given facility.

FIRST AMENDED EXHIBIT A Method for Determining Percent Reduction Revised May 2004

Under the Agreement, the Metro Units can comply with the SO₂ emission limitation by either emitting less than 10,500 tons per year or achieving a 70% reduction.¹ This Exhibit describes the method that the Division will employ to determine the percent reduction achieved by the Metro Units in each calendar year. If the Metro Units achieve a 70% reduction using this method, they will comply with the SO₂ emission limitation.

Summary

The percent reduction of SO₂ is calculated as follows:

$$\% \text{ Reduction} = 100 * (\text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate} - \text{Metrowide Controlled SO}_2 \text{ Emission Rate}) / \text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate}$$

- where: (1) Metrowide Uncontrolled SO₂ Emission Rate is determined from coal sulfur content data derived from each Metro Facility and includes imputed uncontrolled SO₂ emissions for the retired units (Arapahoe Units 1 and 2) based on an 82% capacity factor; and
- (2) Metrowide Controlled SO₂ Emission Rate is determined from the continuous emissions monitoring system (CEMS) certified under the requirements of Title 40 of the Code of Federal Regulations, Part 75 (40CFR75). These Part 75 CEMS are installed at the outlet of each unit to measure the SO₂ mass emissions from each unit.

A detailed description of these calculations is presented below.

1. Measurement of Coal Sulfur Content and Quantity of Coal Burned

¹ As used in this Exhibit, unless defined herein, capitalized terms have the same meaning given to them under the Agreement.

The total monthly tons of coal burned in each Metro Unit will be obtained for each unit from PSCo's monthly system operating report or FERC Form 423, or the equivalent. The sulfur content of the coal fed into the Metro Units is determined from the unit train coal sample analysis provided by each coal supplier with each unit train load of coal received during each calendar year covered by the Agreement. These coal samples are gathered according to the procedures specified in the purchase agreements between PSCo and each coal supplier. Each unit train coal sample analysis provides, among other things, the sulfur and BTU content on a per pound basis, for the coal delivered in each unit train.

2. Calculation of Uncontrolled SO₂ Emission Rate from Coal

The unit total monthly tons of coal will be matched, as nearly as possible, with the heat content (measured in BTUs per pound) determined from the unit train coal sample analysis. The total number of BTUs burned in each unit each month will be calculated as follows:

$$\text{Unit Total Monthly Coal BTU} = \text{Unit Total Monthly Tons of Coal} * \text{Unit Coal Train Sample Analysis in BTU/lb} * 2000 \text{ lbs/ton} = \text{BTU/Unit}$$

The uncontrolled monthly coal SO₂ emission rate is determined from the unit coal train sample analysis sulfur and BTU content, as follows:

$$\text{Unit Uncontrolled Monthly Coal SO}_2 \text{ Emission Rate} = [(1000000 \text{ BTU/MMBtu} * (2 \text{ lbs SO}_2 / \text{lb S}) * \text{Unit Coal Train Sample Analysis Sulfur Content}) / \text{Unit Coal Train Sample Analysis, BTU/lb}] = \text{lb SO}_2/\text{MMBtu}$$

Where 1000000 converts from BTU to million BTU (MMBtu) and 2 converts from sulfur to sulfur dioxide. The Unit Coal Train Sample Analysis Sulfur Content is expressed as a fraction, i.e. lb Sulfur / lb coal.

Finally, the uncontrolled tons of SO₂ are calculated as follows:

$$\text{Unit Monthly Uncontrolled Tons of SO}_2 = [(\text{Unit Uncontrolled Monthly SO}_2 \text{ Emission Rate} * \text{Unit Total Monthly Coal BTU}) / 1000000] * (1 \text{ ton}/2000 \text{ lb}) = \text{tons SO}_2/\text{Unit}$$

3. Accounting for the Effect of Arapahoe 1 and 2 Retirement

The Agreement specifies that Arapahoe Units 1 & 2 will be retired and the emissions reductions from this retirement credited to the calculation of the emissions reduction. This calculation requires the Division to impute a capacity factor, heatrate, and coal quality data for each of these units. The Division has agreed to impute a capacity factor of 82%, a heatrate of 12500 BTU/kWh², and an SO₂ emission rate based on the Unit Uncontrolled Monthly Coal SO₂ Emission Rate determined for Arapahoe Units 3 & 4:

Uncontrolled Arapahoe 1 or 2 SO₂ Tons of SO₂ = [(45000 kW) * (8760 hrs/yr) * (0.82) * 12500 BTU/kWh) * (MMBtu/1000000 BTU) * (Arapahoe Unit 3 and 4 Uncontrolled Monthly SO₂ Emission Rate, lb SO₂/MMBtu) * (1 ton/2000 lbs)] = Tons SO₂/yr. Where 45000 is the net effective capability of each of these units, 8760 is the number of hours in a year, 0.82 is the agreed to capacity factor, 12500 is an historical average heatrate for these units, 1000000 converts from BTU to MMBtu and 2000 converts from pounds to tons.

Twice this mass of SO₂ will be added to the Metrowide Total Annual Uncontrolled Tons of SO₂ calculated below, to account for the retirement of Arapahoe Units 1 and 2 (because they are the same size).

4. Calculation of Metrowide Uncontrolled SO₂ Emissions

² The heatrate represents an engineering estimate of the average operating heatrates of Arapahoe 1 and 2. It is comparable to the average of the heatrate for the two units as measured in 1997. See Exhibit B

The Metrowide Total Annual Uncontrolled Tons of SO₂ is calculated as the sum of each units Unit Monthly Uncontrolled Tons of SO₂, as follows:

Total Uncontrolled SO₂ Emissions = [Unit No. 1 Unit Monthly Uncontrolled Tons of SO₂ + Unit No. 2 Unit Monthly Uncontrolled Tons of SO₂ + etc...] + [2 * Uncontrolled Arapahoe 1 or 2 SO₂ Tons of SO₂] = Tons SO₂/year

5. Calculation of Metrowide Total Annual Coal BTU

The Metrowide Total Annual Coal BTU is calculated as the sum of each unit's Unit Total Monthly Coal BTU, as follows:

Metrowide Total Annual Coal BTU = [Unit No. 1 Unit Total Monthly Coal BTU + Unit No. 2 Unit Total Monthly Coal BTU + etc...] = BTU/year

6. Calculation of Metrowide Uncontrolled Emission Rate

The Metrowide Uncontrolled Emission Rate is calculated by dividing the Total Uncontrolled SO₂ Emissions by the Metrowide Total Annual Coal BTU.

Metrowide Uncontrolled SO₂ Emission Rate = [(Total Uncontrolled SO₂ Emissions * 2000 lb/ton) / (Metrowide Total Annual Coal BTU * 1 MMBtu/1000000BTU)] = lb SO₂/MMBtu

7. Measurement of Controlled SO₂ Emissions

The Metrowide Controlled Tons of SO₂ is determined as the sum of each Units Annual CEMS Tons of SO₂, as measured by each of the Part 75 CEMS installed on each of the units subject to the Agreement, as follows:

Metrowide Controlled Tons of SO₂ = [Unit No. 1 Annual CEMS Tons of SO₂ + Unit No. 2 Annual CEMS Tons of SO₂ + etc...] = Tons SO₂/year

8. Measurement of Total Annual Heat Input

The Metrowide Total Annual Heat Input is determined by the sum of each Units Annual CEMS Heat Input (in MMBtu/yr) as measured by each of the Part 75 CEMS installed on each of the units subject to the Agreement, as follows:

Metrowide Total Annual Heat Input = [Unit No. 1 Annual CEMS Heat Input + Unit No. 2 Annual CEMS Heat Input + etc...] = MMBtu/yr

9. Calculation of Metrowide Controlled SO₂ Emission Rate

The Metrowide Controlled SO₂ Emission Rate is calculated by dividing the Metrowide Controlled Tons of SO₂ by the Metrowide Total Annual Heat Input as measured by the CEMS as follows:

Metrowide Controlled SO₂ Emission Rate = (2000 * Metrowide Control Tons of SO₂) / Metrowide Total Annual Heat Input = lb SO₂/MMBtu

Where 2000 converts from tons to pounds.

10. Calculation of Percent Reduction

The Metrowide Annual Percent SO₂ Reduction is calculated from the Metrowide Uncontrolled SO₂ Emission rate and the Metrowide Controlled SO₂ Emission rate as follows:

$$\text{Metrowide Annual Percent SO}_2 \text{ Reduction} = 100 * [(\text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate} - \text{Metrowide Controlled SO}_2 \text{ Emission Rate}) / \text{Metrowide Uncontrolled SO}_2 \text{ Emission Rate}] = \% \text{ Reduction}$$

Where 100 formats the calculation to a 0-100 % expression

APPENDIX I

Compliance Assurance Monitoring Plan

I. Background

a. Emission Unit Description:

Unit 5, Combustion Engineering Boiler, Model and Serial No. 19695, Tangentially-Fired, Rated at 1,845 MMBtu/hr. Coal-Fired with Natural Gas Used for Back-up.

b. Applicable Regulation, Emission Limit, Monitoring Requirements:

Regulations: Operating Permit Condition 1.4 (Colorado Regulation No. 1, Section II.A.1.c)

Emission Limitations: PM 0.1 lb/MMBtu

Monitoring Requirements: Visible Emissions (Opacity) and Preventative Maintenance

c. Control Technology:

This boiler is equipped with a fabric filter dust collector (FFDC) to control particulate matter emissions generation from the combustion of coal. The FFDC has a particulate removal efficiency greater than 99%.

II. Monitoring Approach

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions (Opacity)	Preventative Maintenance
Measurement Approach	Opacity emissions will monitored by a Continuous Opacity Monitor (COM).	Internal inspections of the baghouse will be conducted semi-annually. The baghouse is inspected visually for deterioration and areas of corrosion or erosion. The bags are inspected for holes and tears, and are repaired and replaced as necessary. Door seals are inspected for tightness.
II. Indicator Range	<p>An excursion is defined as an opacity value greater than 15% for 60 seconds or more. When this occurs, the last compartment to be cleaned in automatic cycle is investigated.</p> <p>An excursion is also defined as any 24-hour period in which the average opacity exceeds the baseline level established by the performance test required by Condition 1.4.2.</p> <p>The baseline opacity set by the July 2010 performance test required by Condition 1.4.2 is 7.5%. This value serves as the baseline opacity until the next required performance test as specified in Condition 1.4.2.</p> <p>In addition to the above, when an excursion occurs, the appropriate corrective action is made and repairs and/or replacements are made as necessary.</p> <p>A history of the corrective action(s) will be maintained at the facility and made available upon request.</p>	<p>An excursion is defined as failure to perform the semi-annual inspection within 60 days of its scheduled completion date.</p> <p>An excursion triggers an immediate inspection.</p>
III. Performance Criteria		
a. Data Representativeness	An increase in visible emissions (opacity) under steady-state operating conditions is an indirect indication of a potential increase in particulate matter emissions.	Internal inspections can be used to identify torn bags and/or bags with diminished integrity. Torn bags and/or bags with diminished integrity can be an indication of baghouse issues and potentially an increase in particulate matter emissions.
b. Verification of Operational Status	Operational status shall be demonstrated through the continuous process on/off signal recorded by the Data Acquisition and Handling System (DAHS).	Documentation in plant records will serve as the verification that the semi-annual inspection has been performed.

	Indicator 1	Indicator 2
c. QA/QC Practices and Criteria	The COM equipment and data quality assurance is in conformation with the applicable requirements in 40 CFR Part 60 and the internal CEM Quality Control/Quality Assurance program developed in accordance with 40 CFR Part 75.	Trained personnel perform inspections and maintenance using an established procedures and checklist. Such procedures and checklists shall be made available to the Division upon request.
d. Monitoring Frequency	Continuous	Semi-Annual
e. Data Collection Procedures	Opacity measurements will be performed in accordance with the requirements in 40 CFR Part 60 Subpart A § 60.13. The emissions data will be stored in the unit's DAHS.	Results of inspections and maintenance activities are recorded by the plant and made available upon request.
f. Averaging Time	COM data shall be reduced to 6-minute averages as required by 40 CFR Part 60 Subpart A § 60.13. All 6-minute averages in each 24-hour period (7 am to 7 am) will be averaged together to get a 24-hour average.	N/A

III. Justification

a. Background:

The pollutant specific emission unit is one (1) coal fired boiler, that burns natural gas as a back-up fuel. The boiler is equipped with a FFDC to control particulate matter emissions.

Particulate matter removal is accomplished by passing the flue gases through a porous fabric material. The solid particles buildup on the fabric surface to form a thin porous layer of solids. This layer works in conjunction with the fabric material to trap the particulate matter. According to the CAM plan submitted by the source, the baghouse manufacturer guarantees a particulate removal efficiency greater than 99%, with the total concentration at standard conditions guaranteed at 0.007 gr/dscf and a particulate emission rate of 0.0139 lb/MMBtu. The results of the performance tests conducted for this unit are indicated below:

	Particulate Matter Emissions (lbs/MMBtu)	
	Performance Test Result	Emission Limitation
2001 Performance Test	0.0073	0.1
2010 Performance Test	0.003	0.1

Note that the 24-hour opacity indicator included in the CAM plan is based on the 2010 performance test.

b. Rationale for Selection of Performance Indicators

Monitoring of the baghouse operational parameters is intended to keep the baghouse operating within the manufacturer's specifications. Based on the manufacturer's guarantees and actual performance test data on this unit, it can be concluded that when the baghouse emissions controls are operated as designed, particulate emissions are controlled to levels well below the applicable particulate emission standard. As such, the requirements of compliance assurance monitoring for particulate matter emissions from these units can be accomplished through the monitoring of the selected performance indicators. Monitoring these indicators will signal the potential need for corrective actions to avoid potential problems with any of these factors.

Potential issues in the operation of a baghouse that can compromise its ability to effectively control particulate emissions can generally be categorized as issues with torn and/or broken bags or seals, and characteristics of the ash cake on the bags. The indicators described below were selected for their ability to provide an indication or warning of potential problems with any of these factors.

Visible Emissions (Opacity)

Based on the relationship between particulate matter in a flue gas stream and opacity, an increase in opacity is a valid indication of increased particulate emissions due to compromised baghouse performance. Increased opacity emissions from typical levels, such as a sudden spike or a gradual increase are an indication that baghouse performance has decreased.

Preventative Maintenance

Preventative maintenance is performed on the baghouses to ensure that they are operated and maintained in accordance with the manufacturer's guidelines.

c. Rationale for Selection of indicator Ranges

Visible emissions (opacity)

The source proposed that a spike in opacity, defined as an opacity reading greater than 15% for sixty (60) seconds or more is an indication of potential reduction in baghouse performance. In response to this indicator, the last compartment to be cleaned in automatic cycle is investigated.

The Division agrees that a sudden spike in opacity is a reasonable indicator that the baghouse operation may have been compromised. The 15% indicator level is below the opacity limitations set for Unit 5. PSCo submitted information indicating that the 15% opacity indicator is based on operating experience. In their submittal, PSCo indicated that based on their years of operating experience an opacity spike of 15% opacity for 60 seconds or more is generally an indicator that there is a problem with the baghouse and that an opacity spike below that set point would pick up spikes in opacity that are seen with normal operation. Although PSCo has not correlated 15% to a level of PM emissions, this is a short term (one minute or more) indicator of baghouse performance and as specified in 40 CFR Part 64 § 64.4(c)(1), emission testing is not required to be conducted over the indicator range or range of potential emissions. Given that the PM standard is based on the average of three one (1) hour tests and past performance tests

indicate that the PM emissions are less than 50% of the standard, the short term 15% opacity indicator serves to provide an indication of proper baghouse operation and as such can be reasonable indicator that Unit 5 is in compliance with the PM limitations.

Although the source proposed an indicator range of “an increase in opacity above baseline conditions during normal operations to opacity emissions greater than 10% over an extended period of time”, the Division considered such a range to be inappropriate, since neither the time period (i.e., averaging time) was defined and it was not clear how the 10% opacity related to the PM emission limitations. Specifically PSCo did not correlate the 10% opacity to a PM emission level, nor did they submit any performance test data with their CAM plan.

Therefore, the Division is including as CAM a 24-hr average opacity indicator, which is similar to the monitoring required for control devices (e.g. baghouses) used to meet the particulate matter standards under NSPS Da. For new (constructed after February 28, 2005) electric utility steam generating units NSPS Subpart Da specifies that a baseline opacity level be established and that any 24-hr average opacity value that exceeds the baseline level shall be cause for investigating the control device.

The 24-hr average opacity indicator range will be set in a manner similar to the methodology specified in 40 CFR Part 60 Subpart Da § 60.48Da(o)(2)(iii), which states that the baseline opacity is established during the performance test by averaging all 6-minute average opacity values from the COMS recorded during each of the test runs and then adding a 2.5% opacity to the calculated average opacity. If the NSPS Da baseline opacity (average during test run plus 2.5%) is less than 5%, then the baseline opacity is set at 5%. Since Unit 1 is subject to less stringent particulate matter standards than the NSPS Da standards for new units (0.1 lb/MMBtu vs. 0.015 lb/MMBtu), the Division is allowing an opacity value up to 5% to be added to the calculated opacity average from the performance test. The actual allowable opacity add-on is based on the results of the performance test. Also, as provided for in NSPS Da, if the baseline opacity (COMS average plus add-on) is less than 5%, then the baseline opacity (i.e., the indicator range) is set at 5%.

Since the 24-hr opacity indicator is very similar to the control device monitoring required for new units under NSPS Da, the Division considers that the 24-hr opacity indicator is acceptable for CAM.

The Division intends to require that a performance test be conducted within 180 days of renewal permit issuance to demonstrate compliance with the PM emission limitation, therefore, the permit will require that the source set the baseline opacity during this test. Although a performance test was conducted on Unit 5 in 2001 and information on opacity emissions during this test may be available (PSCo is only required to retain monitoring data for five years after it is generated) and thus may be used to set the indicator range, the 2001 test was conducted prior to the installation of the lime spray dryer on Unit 5. Therefore, the Division considers that it is more appropriate to set the indicator range on a more recent and representative test. As indicated in 40 CFR Part 64 § 64.4(e)(2), if installation of equipment and/or performance testing to set indicator ranges is necessary prior to performing the monitoring under CAM, that the schedule for completing installation and/or testing and beginning operation of the monitoring shall be as expeditiously as practicable but no longer than 180 days after approval of the permit. To that end, the permittee conducted performance tests in July 2010 and began monitoring the 24-hour opacity

averages consistent with the baseline values set in those tests. The application to incorporate the 24-average opacity value into the permit was submitted on August 20, 2010. Since the renewal permit was issued in March 1, 2010, the indicator ranges were set and monitoring commenced within 180 days of renewal permit issuance, as required by § 64.4(e)(2).

Preventative Maintenance

Although the source proposed to use monthly reviews of historic minute opacity data and that those reviews would be used to trigger repairs or corrective action. Since it isn't clear how these reviews would trigger repairs the Division considered that a more definitive measure for defining preventative maintenance would be semi-annual internal inspections of the baghouse. The Division would consider that failure to conduct semi-annual inspections may compromise the ability of the FFDC to function as designed. As such, the Division is including in this CAM plan a requirement to perform internal inspections in order to ensure proper baghouse function and perform required repairs and maintenance of the bags as needed.